Long Sault Rapids

St. Lawrence River

Arthur V. White

Commission of Conservation
Canada

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Commission of Conservation
CANADA

COMMITTEE ON WATERS AND WATER-POWERS

LONG SAULT RAPIDS, ST. LAWRENCE RIVER

An Enquiry into the Constitutional and Other Aspects of the Project to Develop Power Therefrom

By

ARTHUR V. WHITE, M.E.

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OTTAWA
1913

Committee on Waters and Water-Powers

Chairman:

Hon. Henri S. Beland

Members:

Hon. Jules Allard
Hon. James K. Flemming
Hon. William H. Hearst
Mr. Charles A. McCool
Hon. William R. Ross

OTTAWA, July 24, 1913

Sir:

I have the honour to transmit herewith a report on the Long Sault rapids, St. Lawrence river, containing an enquiry into the constitutionality of the Long Sault Development Co.'s charter, and into the effect on navigation and the general advantages or otherwise, accruing to the people of Canada, from the project to develop electric power from the said rapids.

Your obedient servant

JAMES WHITE
Assistant to Chairman

HON. CLIFFORD SIFTON,
Chairman,
Commission of Conservation.

To Field-Marshal His Royal Highness Prince Arthur William Patrick Albert, Duke of Connaught and of Strathearn, K.G., K.T., K.P., &c., &c., Governor General of Canada.

May it Please Your Royal Highness :

The undersigned has the honour to lay before Your Royal Highness a report on the Long Sault Rapids, St. Lawrence River.

Respectfully submitted

CLIFFORD SIFTON
Chairman

Ottawa, July 25th, 1913.

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Near View of Portion of Long Sault Rapids

Long Sault Rapids, St. Lawrence River

THE question whether private corporations and individuals shall, or shall not, be permitted to construct works for the development of power in the St. Lawrence river, is one of vast importance to the people of Canada. The present is deemed an opportune time to review the facts. The great possibilities of injury to the interests of Canada; the enormous potential values of the franchises; the possibility that, within the lifetime of many men now living, electrical heating will, in Canada, supersede in part the burning of anthracite coal; the certainty that, within a few years, it will be possible to economically transmit electrical energy to much greater distances than at present, thus bringing southern Ontario and western Quebec, and the cities of New York, Jersey City, Newark, Boston, New Haven, etc., within economic radius of the rapids of the St. Lawrence: these, and many other considerations demonstrate that to conserve her great interests, Canada should adopt a well-considered and cautious policy.

In this connection the activities of the Long Sault Development Company which, during the last few years, has been seeking to acquire a franchise for the development of the Long Sault rapids in the St. Lawrence, are of interest.

In order to understand the true import of the Bills on behalf of the Long Sault Development Company presented to the United States Congress and to the Parliament of Canada it is necessary to make a brief study of the various other interests which are combined and associated with that Company. In the following report the principal facts essential to such a study are set forth.

Author's Note.—In preparing this report it was concluded best to assist the reader to gain a general yet precise understanding of the subject in hand by setting it forth in brief outline, and to include full copies of the various documents as Appendices. To these, reference may be made by any one desiring a more comprehensive knowledge of the many and diverse factors involved in the Long Sault power project. The time available for the preparation of this report was limited, and in consequence of this fact, certain memoranda herein given, as for example the effects which the damming of the St. Lawrence river, at the Long Sault rapids, will have upon navigation, must be considered more as suggestive, and as by no means a full consideration of such phases of the subject.—A. V. W.

Long Sault Development Company

The Long Sault Development Company owes its origin to an Act* of the Legislature of the State of New York, Chapter 355, Laws of 1907, which became law on May 23rd, 1907. This Act is intituled:

> "An Act to incorporate the Long Sault Development Company, and to authorize said Company to construct and maintain dams, canals, power houses and locks at or near Long Sault island, for the purpose of improving the navigation of the St. Lawrence river and developing power from the waters thereof, and to construct and maintain a bridge, and carry on the manufacture of commodities."

The Company, as stated in the Act, is incorporated:

> "For the purpose of erecting, constructing, maintaining, operating and using, in connection with the St. Lawrence river, a dam or dams, a canal or canals, a reservoir or reservoirs, and a power house or power houses and works appurtenant thereto, at or near Long Sault island, in the county of Saint Lawrence, and of erecting and constructing a lock or locks, and works appurtenant thereto, at or near the same place, and for the development of electric power and energy, and the permanent improvement of navigation on the Saint Lawrence river, at and above and below said place; and also of constructing and maintaining a bridge upon or in connection with said works, and of carrying on the manufacture of commodities with the said power."

Section 3 of the Act provides that:

> "Said corporation shall have the right to erect, construct, maintain, operate and use all such dam or dams, canal or canals, reservoir or reservoirs, gates, sluices, trunks, pipes, bulkheads, piers, flumes, abutments and other works appurtenant thereto, as may be proper or useful for the purpose of the development of water-power, and of electrical power and energy therefrom, at such point or points upon or adjacent to the south shore of the St. Lawrence river, near Long Sault island or Barnhart island, and upon the said islands, or either of them, and between said islands, and between said islands or either of them and the shores of the said river and Sheek island (but not across the international boundary line unless consented to by the Dominion of Canada,) as may be selected by said corporation, and also in and upon so much of the said river and the bed thereof as lies to the south of the international boundary line, at or near Long Sault island or Barnhart island, either independently or in connection with like works now erected, in so much of said river and the bed thereof as lies to the north or Canadian side of said international boundary line, and upon and adjacent to the northerly shore of said river; and to erect, construct,

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* See Appendix I, page 39.

maintain, operate and use a power house or power houses, and conductors, cables, wires, insulators and other appliances in connection with the said works for the development of electrical power and energy; and also to take and use the waters of said river at and above the points of location of said works heretofore authorized, and to construct and maintain upon, over and in connection with said dam or dams and other works, a bridge or bridges across or partly across the Saint Lawrence river, with the approaches thereto, for the use of foot passengers, animals and vehicles, and to charge reasonable rates of toll for passages thereon; the said rights being granted upon the express condition that said corporation shall make just compensation to all persons injured by the exercise of the rights and privileges heretofore granted, and that said corporation shall also erect and construct a lock or locks as may be required by the United States of America, and shall provide electrical power and energy for the maintenance, operating and use of said lock or locks, free of charge, and shall in all other respects perform, fulfil and abide by all and singular the conditions and provisions of this Act, and also of any Act of the Congress of the United States relating thereto, and also upon condition that the rights thereby granted shall never be so used as to impair or obstruct the navigation of the St. Lawrence river, but, on the contrary, that such navigation shall be preserved in as good condition as, if not better than, the same is at present, regard being always had to the amount of the natural flow of water in said river as affecting its navigability from time to time."

And again, under Section 4, the Act provides that:

"After the Congress of the United States shall authorize the construction of dams, locks and canals hereby authorized and after the payment by said corporation into the treasury of the state of the fixed sum of ten thousand dollars the commissioners of the land office shall, upon application of said corporation, grant unto it the title and interest of the people of the state in and to lands under the waters of the St. Lawrence river to be covered or occupied by said works and locks and power houses, provided, however, that any of the lands of the state which may be so conveyed to said corporation shall be forfeited and title thereto shall revert to the state unless the same are actually used by said corporation and covered by its dams, canals, reservoirs, gates, sluices, trunks, pipes, bulkheads, piers, flumes, abutments or other works appertaining thereto, or are necessary to the enjoyment for said purposes of any lands so used or covered, within fifteen years from the conveyance thereof by the commissioners of the land office to said corporation under authority of this Act, and in consideration of the conveyance so made under the authority of this Act, as well as for the rights and privileges hereby granted, the said corporation in addition to the payment aforesaid shall pay into the treasury of the state for the year nineteen hundred and ten, the fixed sum of fifteen thousand dollars, and for the year nineteen and eleven the fixed sum of twenty thousand dollars. For each year after nineteen hundred and eleven the said corporation shall pay at the following

rates upon the average amount of electrical horse-power generated during such year under the authority of this Act, that is to say: upon all amounts up to twenty-five thousand horse-power, at the rate of seventy-five cents per horse-power."

The above-mentioned provisions of the Act are the most important so far as the present discussion is concerned.

Features of Company's Charter

Unlike its allied Company, in Canada,—the St. Lawrence Power Company—the charter of the Long Sault Development Company does not confer upon it powers of eminent domain. As yet, the latter has not commenced any construction works in the St. Lawrence river. It is endeavouring, however, to keep its charter alive and, in conformity with conditions in its Act, deposited with the Comptroller of the state of New York, on January 24th, 1911, the sum of $15,000, and again on January 20th, 1912, the sum of $20,000. On January 27th, 1913, the Company tendered the sum of $25,000 on account of the year 1912, but, upon the advice of the Attorney General, this was refused. The Company then applied for a mandamus to compel acceptance of the January tender, thus endeavouring to secure a judicial determination of the constitutionality of the grant. As the application in the first instance was denied, the Company appealed, but the intermediate court of appeal has not yet (July 15th, 1913), rendered its decision.

Upon receiving its charter from the state of New York, the Company prepared to exercise its rights thereunder and has already expended about one and three-quarter million dollars in the purchase of properties and in preparations for developing water-power in the St. Lawrence river. It is not known, however, what proportion, if any, of this large sum has been expended in connection with development works of companies with which the Company is affiliated.

Unconstitutionality of the Long Sault Development Company's New York State Charter

The grant made to the Long Sault Development Company by Chapter 355, Laws of the State of New York, 1907, of privileges for the use of waters and of the title to the bed of the St. Lawrence river under the Long Sault rapids, has been declared unconstitutional by the state of New York.

Decker's Opinion*

In May, 1911, George P. Decker, Chief Attorney and Counsel for the Forest, Fish, and Game Commission of

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* See Decker, George P., *Opinion, in Re Constitutionality of the Grant to the Long Sault Development Company of Privileges, by Chapter* 355, *Laws of* 1907, *for the Use of Waters and of Title to the Bed of the St. Lawrence River under the Long Sault.* Albany, N.Y., May, 1911. 18pp. 8°.

the state of New York ably challenged the constitutionality of the grant on two grounds:

> *First*, that it involves the alienation of lands within the New York State Forest Preserve, and *second*, that contrary to the State Constitution, it purports to grant an exclusive franchise.

Carmody's Opinion

Pursuant to a resolution by Senator Burd,* Thomas Carmody, Attorney General of the state of New York on December 30, 1912, rendered his *Opinion* relative to the constitutionality of the charter of the Long Sault Development Company.† He declared it to be unconstitutional on the following grounds:

> *First*, It contravenes section 18 of article III of the State Constitution, which provides that the Legislature shall not pass a private or local bill granting to any private corporation, association or individual any exclusive privilege, as contemplated by section 18 of article III of the Constitution.
>
> *Second*, It violates section 7 of article VII of the State Constitution, which provides that the lands of the State now owned or hereafter acquired, constituting the Forest Preserve, as now fixed by law, shall be forever kept as wild forest lands, and shall not be leased, sold or exchanged, or taken by any corporation, public or private. The bed of the St. Lawrence river, which, by the act in question, is directed to be conveyed to the Long Sault Development Company, is owned by the State and was so owned at the time the provision of the Constitution was adopted, and was included within the Forest Preserve, as defined by section 100 of chapter 332 of the Laws of 1893, describing the lands included within the State Forest Preserve.
>
> *Third*, The act in question is a private bill and embraces more than one subject, and is, therefore, in violation of article III, section 16 of the State Constitution, which provides that no private or local bill which may be passed by the legislature shall embrace more than one subject, and that shall be expressed in its title.
>
> *Fourth*, The act is invalid as being in excess of the powers of the Legislature, in that it provides for the alienation by the State to the Long Sault Development Company of title to the lands in the bed of the St. Lawrence river. The title of the State in these lands is a sovereign right, rather than a proprietary title. It is inconsistent with that right, which must be exercised for the

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* For the Resolution of Senator Burd, see Legislative Record of the state of New York, 1912, p. 265. See also page 45 of this report.

† For the *Opinion* of Mr. Carmody, see Appendix II, page 50.

benefit of the whole people, that the title to the bed of a navigable stream should be granted in fee to a private corporation.

Governor Sulzer in referring to Mr. Carmody's report said:

"The Attorney-General, the State Conservation Commission and myself are convinced that the Act is void and unconstitutional and that the appropriate action to be taken by legislation at this time is to repeal the said Act.

"Not only is said act violative of the provision of our State Constitution, but its provisions are in other respects improvident, unwise and indefensible, both from an industrial and economic point of view."

Long Sault Act Repealed

On May 8th, 1913, a Bill * to repeal the Act of Incorporation of the Long Sault Development Company was signed by Governor Sulzer. It also appropriated $36,320 for the purpose of refunding to the Long Sault Development Company the monies paid into the State treasury.

On the same date another Bill† was signed. It empowers the State Board of Claims to adjudicate upon any claims that may be preferred by the Long Sault Development Company.

Long Sault Act and Navigation

To the cursory reader it would appear that one of the principal purposes of the Charter held by the Long Sault Development Company purports to be the improvement of navigation. The preamble of the Act, for example, states that it is:

> "For the purpose of improving the navigation of the St. Lawrence river."

And, again, for:

> "the permanent improvement of navigation of the St. Lawrence river at and above and below said place."

The Charter, however, does not stipulate or impose upon the Company any specific requirements for the improvement of navigation. It only recites that:

> "The navigation of the St. Lawrence river ..... shall be *preserved in as good condition as, if not better than, the same is at present*, regard being always had to the amount of the natural flow of water in said river as affecting its navigability from time to time."

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*Laws of the state of New York, 1913, chap. 452. See Appendix III (a), page 65.

†Laws of the state of New York, 1913, chap. 453. See Appendix III (b), page 67.

Large Passenger Steamer Shooting the Long Sault Rapids

Federal Jurisdiction Paramount

As the Federal Government of the United States has paramount jurisdiction over navigable waters, the Act of the New York State legislature, Chapter 355, Laws of 1907, requires that the Company shall obtain authority from the Congress of the United States to construct the dams, locks and canals referred to in the Act, and, then, the Act further provides, that, after receiving proper authority from Congress, the Company may have, on application therefor, a formal grant of title to the portion of the bed of the river that is to be covered by the structures, and the Commissioners of the Land Office are commanded to make such conveyance. Not only the charter, but the privileges granted, are unlimited as to time.

The Long Sault Development Company, when it shall have complied with the requirements of the Federal law, and upon the terms prescribed by the statute, will—to use the statement made by the Company before the Committee on Rivers and Harbours:*

> "become vested with (a) the title to that part of the bed of the St. Lawrence river which it is necessary to use in the construction of the works contemplated by the Act, and (b) the right to construct and maintain such works and to enjoy to the exclusion of all others the right to divert and use for purposes of operating its works, the surplus waters of the St. Lawrence river; subject, however, to such regulation either in respect of the character of the works or the use of the water of the river as the Federal Government (and to some extent, pointed out below, the State Government) may from time to time impose in order to maintain unimpaired the navigability of the river."

Primary Object of Bills

It will therefore be perceived, that the primary object of the Bills that have been introduced, and those that are at present before the Congress of the United States, is to secure the Federal authority specified in the Act which the Long Sault Development Company obtained from the state of New York. Once this authority has been obtained, the Company may have, on application therefor, a formal grant of title to the portion of the river-bed that is to be covered by its structures, canals, etc. Such a grant, apart from international considerations, would practically give the Company domination of the situation.

Long Sault Bills Before Last Congress

In 1907, a Bill (H. R. 25707) to authorize the construction of dams, canals, power stations and locks for the improvement of navigation and development of water-power in St. Lawrence county, New York,

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* See Appendix VI, page 89.

was introduced in the United States Congress, but was subsequently withdrawn.*

Malby Bill H. R. 14531 †

On Dec. 14th, 1909, a Bill (H. R. 14531) was introduced in the House of Representatives by Hon. G. R. Malby to provide

> "For the construction of dams, locks, canals and other appurtenant structures in the St. Lawrence river at and near Long Sault island, St. Lawrence county, New York."

This Bill was subsequently withdrawn. It provided that the works authorized should be

> "completed within fifteen years from the date of passage of this Act, or from the date of *the consent of the proper authorities* of the United States of America and *the Dominion of Canada* to the construction of said works, or of the approval of plans and specifications and location and accessory works thereof;"

and it, further, provided that:

> "This Act shall not be construed as authorizing said Company, its successors or assigns, to construct the said dams, canals, locks, and other works until *such consent and approval shall be obtained.*"

Obviously, if *unacceptable* plans were filed with the "proper authorities of the United States of America and the Dominion of Canada" the life of the charter might be rendered perpetual.

Young Bill H. R. 32219 ‡

On Jan. 28th, 1911, Mr. Young of Michigan introduced a Bill (H. R. 32219) intituled:

> "A Bill to provide for the improvement of navigation in the St. Lawrence river and for the construction of dams, locks, canals, and other appurtenant structures therein at and near Long Sault, Barnhart and Sheek islands."

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* See Appendix VII, page 104.

† See Appendix IV, page 68, respecting this Bill. Consult the *Memorandum in opposition to the Bill* presented before the Committee on Rivers and Harbours of the United States House of Representatives, by C. E. Littlefield (see Appendix V), also *Memorandum in favour of the Bill* presented by the Long Sault Development Company, (a pamphlet of 20 pages). Also, consult *Hearings on the Subject of H. R.* 32219, 61st Congress, 3rd Session and H. R. 14531, 61st Congress, 2nd Session—relating to the importance of navigation of the St. Lawrence river at and near Long Sault island, St. Lawrence county, N.Y., including the construction of locks, dams, canals and other appurtenant structures; pp. 625 to 914, with map, Washington, 1911.

‡ See Appendix XVIII, page 156.

This Bill in its essentials resembles Bill H. R. 14531 previously introduced by Mr. Malby. There is, however, one noticeable omission which is of importance to Canada. The requirement of the consent of Canada is deleted, and the only provision which appears to contemplate action upon the part of the Dominion of Canada is that of section 2 which provides:

> "That said Long Sault Development Company, its successors and assigns, shall be subject to the provisions of the treaty between the United States and Great Britain relative to the boundary waters between the United States and Canada, proclaimed by the President of the United States on the 13th day of May, 1910."

It will be observed that this provision does not provide that the operation of the Act be *contingent upon the declared consent or approval of the Commission*, but simply subjects the Act to "the provisions of the treaty."

Now, Article VIII of the International Boundary Waters Treaty provides that:

> "The majority of the Commissioners shall have power to render a decision. In case the Commission is evenly divided upon any question or matter presented to it for decision, separate reports shall be made by the Commissioners on each side to their own Government. The High Contracting Parties shall thereupon endeavour to agree upon an adjustment of the question or matter of difference, and if an agreement is reached between them, it shall be reduced to writing in the form of a protocol, and shall be communicated to the Commissioners, who shall take such further proceedings as may be necessary to carry out such agreement."

An Important Point

If the application of the Long Sault Development Company were submitted to the International Joint Commission and if the Commissioners failed to agree and were "evenly divided," the matter would then pass to the direct consideration of the High Contracting Parties. If the High Contracting Parties failed to agree, then no decision could be reached, but the Long Sault Development Company would, nevertheless, have submitted its Act to the Commission. It is open to be argued, therefore, that, by thus subjecting its Act "to the provisions of the treaty," the Company would have complied with the requirements of Section 2 and its status would not be adversely affected by the failure either of the Commission or of the High Contracting Parties, to reach an agreement. It would have complied with its treaty obligations, and might contend that it could now proceed to carry out other terms of its charter, the operation of which terms had been held in abeyance pending the subjection of its Act "to the provisions of the treaty."

The objects set forth in Bill, H. R. 25707; in the Malby Bill, H. R. 14531; and in the Young Bill, H. R. 32219 have, from time to time, been the subject of consideration by the International Waterways Commission. A public hearing was held by the Canadian section at Montreal, November 6, 1907. Public hearings were held by the full Commission in Toronto, October 27, 1907, also on November 21, 1908; and at Buffalo, February 26, 1909 and January 8, 1910. A public hearing was held at Toronto on February 8 and 9, 1910.* At this hearing, the Commission of Conservation strongly protested against the proposal to grant the Company permission to dam the Long Sault.

Dam in South Sault Channel

The statement of Congressman Malby before the sub-committee on Commerce of the Senate in the Hearings respecting Senate Bill, S. 10558†—(which is identical in text with Bill, H. R. 32219) is very significant:

> The Chairman: You concede that for the construction of these works the consent of the Canadian Government is necessary?
>
> Mr. Malby: Absolutely essential, sir. There will be no work done in the United States of America unless Canada consents. This is one job, Mr. Chairman, or it is nothing.

But at the close of the Hearing, in answer to another question from Chairman Burton, of the sub-committee, Mr. Malby admitted that, in his judgment, the bill did authorize the construction of part of the work without the consent of Canada, as appears by the following:

> The Chairman: If you can do that, is it contemplated, without the consent of the Canadian Government, to put in that dam at the South Sault?
>
> Mr. Malby: I think it is, if it can be regarded as a practicable engineering proposition.

Thus it is seen that Mr. Malby conceded that the Company contemplated putting a dam in the South Sault channel without the consent of the Dominion Government, provided only that the proposed dam is possible as a "practical engineering proposition."

Malby Bill, H. R. 22950‡

The facts, just recited, are especially pertinent because, on April

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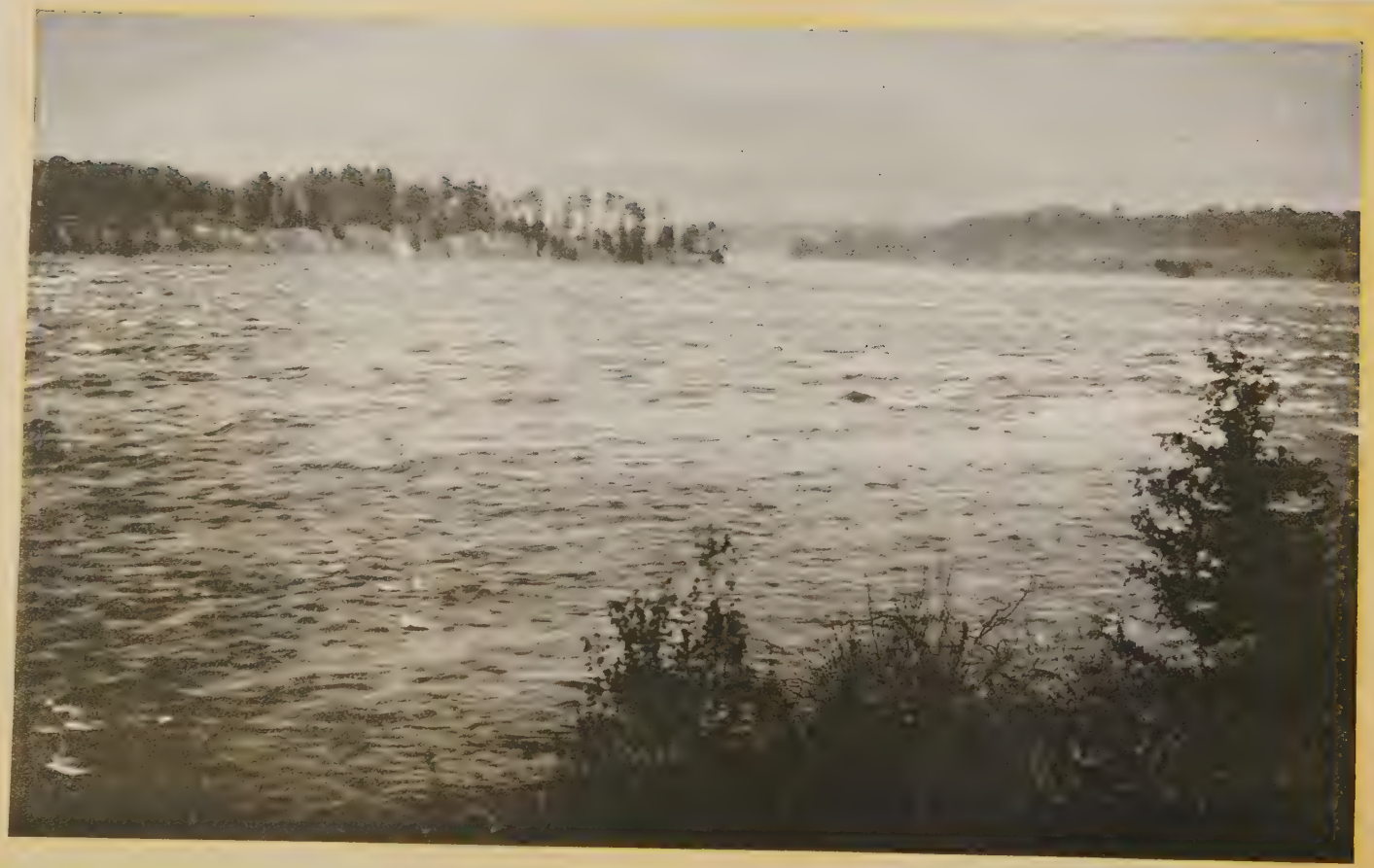
* See Appendices XXX, page 280; VII, page 104; IV, page 68; and XVIII, page 156.

† See Appendix XX, page 183.

‡ See Appendix XXI, page 227.



Long Sault Rapids above the Proposed Spillway of Long Sault Development Company

6th, 1912, a Bill* (H. R. 22950) was introduced in the House of Representives by Mr. Malby, intituled:

> "A Bill to provide for the improvement of navigation in the St. Lawrence river, and for the construction of dams, locks, canals, and other appurtenant structures therein at and near Long Sault, Barnhart, and Sheek islands."

This Bill grants to the Long Sault Development Company the right to construct a dam or dams in so much of the St. Lawrence river as lies south of the international boundary line between the United States and the Dominion of Canada, near Long Sault, Barnhart, or Sheek islands. These dams may be constructed either independently or in connection with like works now erected, or to be erected, in that portion of the St. Lawrence river which lies north of the international boundary line. Provision is also made for the erection of a bridge or bridges and approaches thereto, and a lock or locks, a canal or canals, and other structures appurtenant thereto, provided that such dam or dams, lock or locks, canal or canals, and other structures appurtenant thereto, shall be in accordance with the provisions of the Act, entitled, "An Act to amend an Act entitled 'An Act to regulate the construction of dams across navigable waters,' approved June 23, 1910"; † and provided further, that the bridge or bridges thereto shall be subject to and in accordance with the provisions of an Act entitled, "An Act to regulate the construction of bridges over navigable waters,"‡ approved March 23, 1906.

The Bill provides for conformity to the terms of the International Boundary Waters Treaty, and, also, for conformity to the regulations of the Secretary of War and of the United States Chief of Engineers. It also provides for the periods within which the works authorized must be begun and completed.

The works proposed to be constructed in the South Sault channel are to be commenced within one year and completed within six years from the date of approval by the proper authorities of plans and works.

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* This Bill (H. R. 22950, see Appendix XXI page, 227), in its essentials resembles the bill H. R. 32219, introduced in the House of Representatives on Jan. 29, 1911, by Mr. Young, of Michigan.

The Bill (H. R. 32219, 61st Congress, Third Session), was reported upon, House Calendar No. 369, Report No. 2032, 61st Congress, Third Session, by the Committee on Rivers and Harbours (see Appendix XVIII b). The same Bill was introduced in the United States Senate as S. 10558 by Mr. Oliver, on Jan. 30, 1911, and was reported upon by the Committee on Commerce, Feb. 20, 1911, in Report No. 1203, Calendar No. 1124, 61st Congress, Third Session (see Appendix XIXb, page 173). See also, *Hearings before the Sub-committee of the Committee on Commerce of the Senate*, dated Feb. 8, 1911.

† See Appendix XXII, page 230.

‡ See Appendix XXIII, page 237.

The balance of the work does not require to be completed until within fifteen years from the date of approval by the proper authorities of said plans and works.

Under the terms of the Bill it would be possible for the Long Sault Development Company to build its dam and other works in the South Sault channel, and the balance of the work could be delayed indefinitely, because the works are only to be completed "within 15 years from the date of approval by the proper authorities of said plans and works." There is no provision respecting the date at which plans must be submitted for approval, nor the time or times at which plans must be returned embodying required modifications, etc., etc.

Section 4 of the Bill states:

> "That if said Long Sault Development Company, or any other Company or Companies acting with it in such development, shall develop power by the construction of works a part of which shall be located north of the International Boundary Line, at least one half of the power generated shall be delivered in the United States: PROVIDED that, when in the opinion of the Secretary of War and the Chief of Engineers use cannot be found in the United States for the full share thus assigned to this country the surplus may be temporarily diverted to Canada, but shall be returned to the United States when in the opinion of said officers it is needed."

There is not now, and will not be in the near future, any demand in Canada for a "surplus to be temporarily diverted to Canada." This clause was apparently inserted to form the basis of a claim for a permit *to divert the surplus to the United States*—the obvious argument being that, as the Bill provided for a diversion of the surplus to Canada if not required in the United States, it would only be fair to allow the unused portion of Canada's half of the power to be exported to the United States. Then, when Canadian citizens desired to purchase energy thus diverted to the States, they would find that contracts for a term of years had been entered into which the Company could not abrogate.* It is also of interest to note that, while the Company in the plans submitted at the Toronto hearing showed a proposed development of 500,000 h.p. south of the boundary, they only proposed to develop 100,000 h.p. on the Canadian side. It is hardly necessary to point out that under such circumstances, they could sell their 500,000 h.p. where they pleased, and, as it would be generated in the United States, the Canadian Government would have absolutely no control

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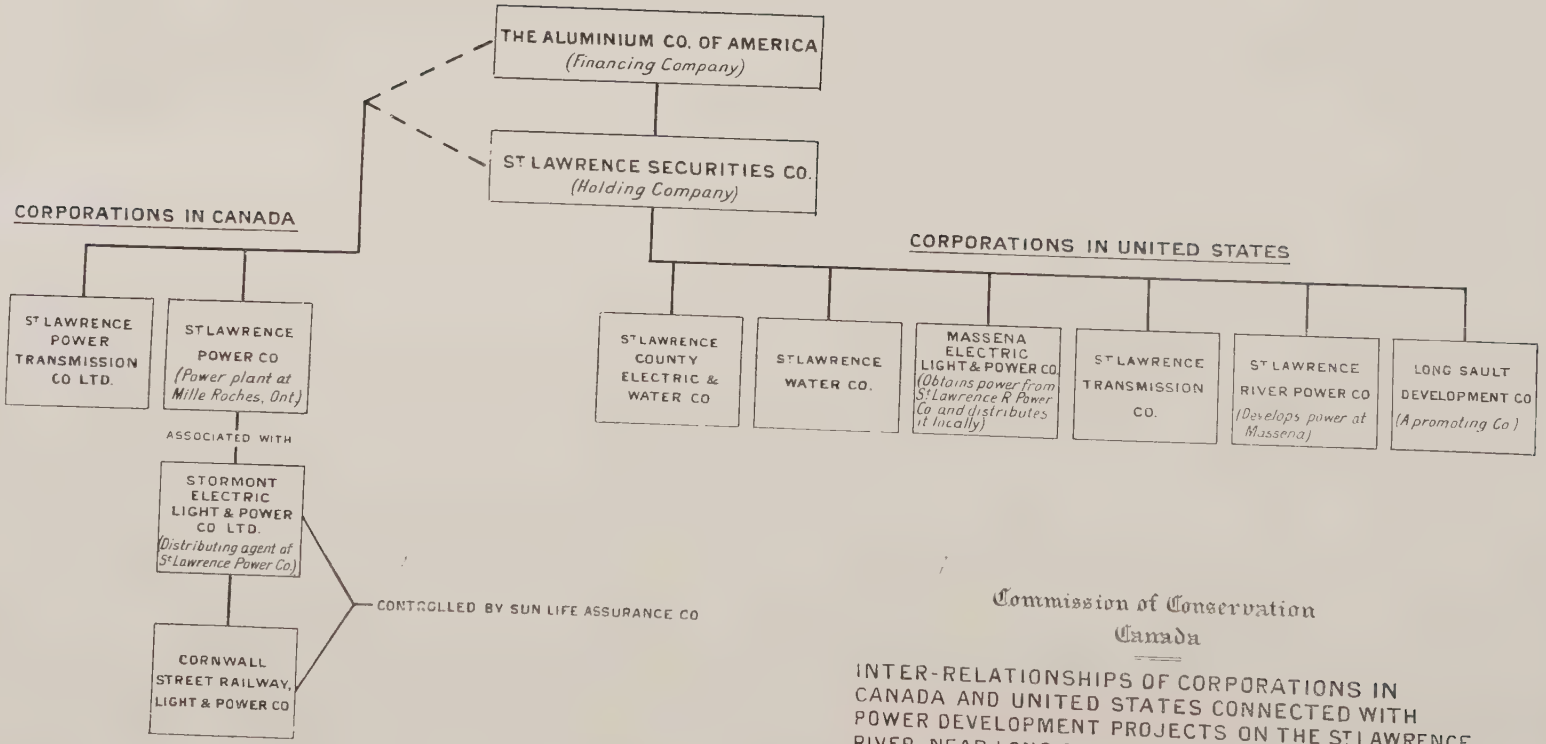
* With regard to the exportation of electricity, see, *The Exportation of Electricity*, by Arthur V. White in *The University Magazine*, October, 1910, pp. 460-467, also, respecting *The Electricity and Fluid Exportation Act* consult *Water-Powers of Canada*, Commission of Conservation, Canada, 1911, p. 66, *et seq.*; also for Act, Regulations and Form of License see *ibid.* p. 341, *et seq.*


THE ALUMINIUM CO. OF AMERICA
(Financing Company)
ST LAWRENCE SECURITIES CO.
(Holding Company)
CORPORATIONS IN CANADA
CORPORATIONS IN UNITED STATES
ST LAWRENCE POWER TRANSMISSION CO LTD.
ST LAWRENCE POWER CO
(Power plant at Mille Roches, Ont.)
ASSOCIATED WITH
STORMONT ELECTRIC LIGHT & POWER CO LTD.
(Distributing agent of St Lawrence Power Co.)
CORNWALL STREET RAILWAY, LIGHT & POWER CO
CONTROLLED BY SUN LIFE ASSURANCE CO
ST LAWRENCE COUNTY ELECTRIC & WATER CO
ST LAWRENCE WATER CO.
MASSENA ELECTRIC LIGHT & POWER CO.
(Obtains power from St Lawrence R Power Co and distributes it locally)
ST LAWRENCE TRANSMISSION CO.
ST LAWRENCE RIVER POWER CO
(Develops power at Massena)
LONG SAULT DEVELOPMENT CO
(A promoting Co.)

Commission of Conservation
Canada

INTER-RELATIONSHIPS OF CORPORATIONS IN CANADA AND UNITED STATES CONNECTED WITH POWER DEVELOPMENT PROJECTS ON THE ST LAWRENCE RIVER, NEAR LONG SAULT RAPIDS

over it. A Bill of this character is one of great importance to Canada because of its possible effects on Canadian interests.

Parent and Allied Corporations of the Long Sault Development Company

In the opening paragraphs of this discussion it was stated that the Long Sault Development Company is only one part of a strong financial and commercial combination seeking to control power development at, and in the vicinity of, the Long Sault rapids. It is in order now to consider the elements constituting this combination. Back of the activities to secure control of all the water-power development, power transmission and other rights and privileges at, and in the vicinity of, the Long Sault rapids is the Aluminum Company of America, commonly known as the Aluminum Trust. Connected with the Aluminum Company is the St. Lawrence Securities Company, a holding company through which provision was made for an issue of $1,550,000 of stock to provide funds:

> "for the actual cost of improvements of the canal and other property of the St. Lawrence River Power Co., *or the development of any water rights along the Little Sault owned or controlled.*"

The St. Lawrence Securities Company holds securities in the following United States companies:

St. Lawrence County Electric and Water Company,
The St. Lawrence Water Company,
The Massena Electric Light and Power Company,
The St. Lawrence Transmission Company,
The St. Lawrence River Power Company, and
The Long Sault Development Company.

Upon the Canadian side of the river the Aluminum Company of America and the St. Lawrence River Power Company, (of New York state) either directly or indirectly, control the St. Lawrence Power Company and the St. Lawrence Power Transmission Company. The Stormont Electric Light & Power Company—the distributing agent for the St. Lawrence Power Co.—and the Cornwall Street Railway, Light & Power Company, are both controlled by the Sun Life Assurance Company of Montreal.

The probable inter-relationships of these various companies are indicated by the accompanying diagram.

Aluminum Company of America

The Pittsburgh Reduction Company was incorporated in 1889 in the state of Pennsylvania; but the name was changed to the Aluminum

Company of America on January 1, 1907. In August, 1906, by purchase through the St. Lawrence Securities Company of the St. Lawrence County Electric & Water Company (capital, $100,000), the St. Lawrence Water Company (capital, $100,000), the Massena Electric Light and Power Company (capital $50,000) and the St. Lawrence River Power Company, the Aluminum Company acquired absolute control of extensive electric-power facilities at Massena, N.Y.

Capital Stock.—The capital stock, authorized and issued, is $20,000,000, consisting of $19,400,000 common and $600,000 six per cent. cumulative preferred; par, $100.

Officers.—Arthur V. Davis, Pres.; C. M. Hall, 1st V. P.; A. K. Lawrie, 2nd V. P.; G. R. Gibbons, Sec. and Asst. Treas.; R. E. Withers, Treas. and Asst. Sec., Pittsburgh, Pa.

Directors.—G. H. Clapp, A. V. Davis, D. L. Gillespie, C. M. Hall, A. K. Lawrie, A. W. Mellon, R. B. Mellon.

General Office, Park Building, Pittsburgh, Pa.

New York Office, 99 John St.

St. Lawrence Securities Company

The St. Lawrence Securities Company was incorporated March 14, 1906, in New York state, as a holding company, to acquire the stocks of the St. Lawrence County Electric and Water Company, the St. Lawrence Water Company, the Massena Electric Light and Power Company, and the St. Lawrence River Power Company.

Capital Stock.—$100,000. All owned by the Aluminum Company of America.

Bonded Debt.—$1,450,000 collateral trust gold 4s; dated April 16, 1906; due Jan. 1, 1956. Authorized issue, $3,000,000, of which $1,450,000 were issuable upon delivery of $1,600,000 common, and $2,700,000 preferred stock of the St. Lawrence Power Company, and the remaining $1,550,000 were reserved to be issued for the actual cost of improvements of the canal and other property of the St. Lawrence River Power Company, or the development of any water rights owned or controlled along the Little Sault.

Officers: Chas. M. Hall, President; John F. Charlton, Secretary.

Office, Massena, N.Y.

It will be observed that $1,550,000 *were reserved for the development of any water rights owned or controlled along the Little Sault.*

Portion of Long Sault Rapids

St. Lawrence River Intake of the St. Lawrence River Power Company's Canal, Massena, N. Y.

St. Lawrence River Power Co. (New York)

The property and franchises of the St. Lawrence Power Company of Massena, N.Y., a domestic corporation organized under and by virtue of Chapter 484 of the Laws of 1896 of the state of New York, intituled "An Act to incorporate the St. Lawrence Power Company of Massena, St. Lawrence county, New York," and supplemented by Chapter 542 of the Laws of 1898 of the state of New York, intituled "An Act supplementary to an act intituled 'An Act to incorporate the St. Lawrence Power Company of Massena, St. Lawrence county, New York,'" were, on the 3rd day of July, 1902, sold under, and by virtue of a judgment, or decree, of the Circuit Court of the United States for the Northern District of New York, rendered in an action pending in said court between the Commercial Trust Company of New Jersey and the Morristown Trust Company, complainants, and the St. Lawrence Power Company of Massena, New York, the Standard Trust Company of New York and United States Mortgage and Trust Company, defendants, and dated, entered and filed in the clerk's office of the said Circuit Court of the United States in the city of Utica, state of New York, on the 13th day of May, 1902.

The assets of the St. Lawrence Power Company, thus sold under foreclosure,* subsequently passed to the St. Lawrence River

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* "In connection with our first description of the water-power plant at Massena, N. Y., in our issue of Dec. 16, 1897, we pointed out that the Company's financial success would hinge largely on the possibility of marketing its power after it was developed; and that it was likely to have great difficulty in doing this. In confirmation of our prediction, it is now announced that the St. Lawrence Power Co., which has built and owns the plant, is to be reorganized, foreclosure proceedings being undertaken on behalf of the bond-holders. The water-power plant, which was fully described in our issue of Feb. 21st, 1901, is *capable of furnishing about* 35,000 *h.p., and can be enlarged by a comparatively small investment to double this capacity.* Practically the only chance for marketing this is through the establishment of local manufacturing plants, and it requires extreme inducements for any such enterprises to locate at a point so remote from markets. There are only two classes of industries in which the cost of power is so large an item that they can afford to even consider such a location. These are the electro-chemical industry and the paper industry. The very large number of huge water-power plants which have been built during the past few years, however, has given the purchasers of power for use in these industries plenty of choice; and Massena power must be sold at a very low figure indeed to counter-balance the advantages of central location and convenient transportation which other water-power plants can offer." (*Engineering News*, April 3, 1902, p. 274).

"The St. Lawrence Power Co.'s plant at Massena, N.Y., was sold on July 3 to Mark T. Cox, of New York, representing the reorganization committee of first and second mortgage holders. The price paid was $500,000. This plant cost more than $10,000,000; the bonds and stock were largely held in England. The plant is first-class in all its equipments, with a capacity for developing 100,000 to 150,000 h.p." (*Engineering News*, July 24, 1902, p. 57.)

Power Company which was incorporated in the state of New York, July 19, 1902.* This company (which is controlled by stock ownership) owns 1,800 acres of land and valuable water rights at Massena, N. Y., with a canal 3½ miles long from the St. Lawrence river to its power plant at Massena. The power house is built on the banks of the Grass river, the tail-race discharging into this stream. They develop 40,000 h.p.—30,000 h.p. direct and 10,000 alternating. The 30,000 h.p. direct current is sold to the Pittsburgh Reduction Company for use in their Massena aluminum works. The price charged the Aluminum Company is $15.00 per h.p. per annum, but the two companies have a number of interests in common. The Company is enlarging its power house to meet the increased demands of the Aluminum Company, and is installing units to develop 24,000 h.p. direct and 6,000 h.p. alternating, making a total development of 70,000 h.p.

Capital Stock.—Authorized, $3,500,000 common and $3,500,000 six per cent. non-cumulative preferred; outstanding, $3,500,000 common and $3,000,000 preferred; par, $100.

The St. Lawrence Securities Company owns $1,600,000 of the common and $2,700,000 of the preferred, and same are deposited as collateral security under that company's bonds.

Bonded Debt.—$500,000 first gold 5s; dated January 2, 1903; due January 2, 1913. United States Mortgage and Trust Company, New York trustee. Subject to call at any time at 105.

$501,000 consolidated gold 5s; dated December 1, 1905. Authorized, $1,500,000, of which $500,000 are reserved to retire first 5s.

Officers.—A. V. Davis, President; C. M. Hall, Vice-President; G. R. Gibbons, Sec. and Asst. Treasurer; R. E. Withers, Treasurer and Asst. Secretary.

Directors.—The foregoing and A. W. Mellon, G. H. Clapp, D. L. Gillespie, A. K. Lawrie.

Main office, Massena, N. Y.

New York office, 99 John St.

An examination of the files of the New York Public Service Commission, second district, state of New York, at Albany, N.Y. shows that the St. Lawrence River Power Company have not filed an annual report with the Public Service Commission. This matter has been the subject of correspondence between the Commission and the Company. The attorney of the Company, Mr. Neil F. Towner, Albany, N.Y., has advised the Commission that the St. Lawrence River Power Company does not supply any electric current to the public or to consumers generally. He states:

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* For papers of incorporation, etc., see Appendix XII, page 133.

St. Lawrence River Power Company's Old Plant, Massena, N. Y.

Old and New Power Houses of St. Lawrence River Power Company, (Aluminum Co.), Massena, N. Y.

"It is, as stated, merely the power-house of the Aluminum Company of America. Any current that is furnished to the public generally is furnished through the Massena Electric Light and Power Company and the St. Lawrence Transmission Company."

St. Lawrence Power Company (Canada)

The St. Lawrence Power Company was incorporated by an Act of the Dominion Parliament, 1 Edward VII. Chapter 111 (assented to 23rd May, 1901).* The Company is empowered to:

"(a) manufacture, use, supply and dispose of electricity, water and gas, and water, hydraulic or other power by means of wires, cables, pipes, conduits, machinery or other appliances; and construct, maintain and operate works for the production, sale and distribution thereof, and for the purposes aforesaid may construct, acquire, use, maintain and operate canals, water-courses, raceways and water-powers in or adjacent to the St. Lawrence river on the north side thereof at any points eastward from Hoople creek, in the county of Stormont, in the province of Ontario, to the eastern end of the Soulanges canal, and construct dams, wing-dams, sluices, conduits and buildings in connection therewith: Provided that the works hereby authorized shall not be commenced until the plans thereof have first been submitted to and approved by the Governor in Council;

(b) acquire patent rights, letters patent of invention, processes, options, and other rights and privileges and again dispose thereof;

(c) manufacture, acquire and dispose of pulp wood, pulp or the products thereof;

(d) manufacture and sell calcium carbide and all products produced in its manufacture; acetylene gas and other gases and products manufactured from calcium carbide;

(e) manufacture and deal in all minerals and the by-products thereof; construct furnaces, ovens and retorts for the reduction of such minerals;

(f) construct tramways, wharfs, docks, offices and all necessary buildings, and purchase, hire, build and repair vessels required for the business of the Company;

(g) construct, acquire and operate by electricity, steam or other motive power, vessels for the transportation of passengers and freight, or towing of barges or other vessels in the river St. Lawrence and the lakes, canals and rivers connected therewith."

Further:

"The Company may acquire and operate the works of any company having powers wholly or in part similar to the powers of the Company, and may acquire the capital stock, bonds, rights, franchises, powers, privileges or properties of any such Company, and may enter into agreements for any amalgamation with such Company, on such terms and conditions as are agreed upon, and subject to such restrictions as to the directors seem fit; . ."

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* See Appendix X, page 121.

And, again, with respect to lands in, or adjacent to, the St. Lawrence river, between the mouth of Hoople creek and the eastern end of Sheek island, and the land not more than two miles distant from the Soulanges canal, and lying between the eastern end of the Soulanges canal and a point not more than five miles in a westerly direction from the eastern terminus of the Soulanges canal, the company has powers of expropriation, subject, however, to the provisions of the *Railway Act*. The capital stock of the Company is $1,500,000, provision being made in the Act to increase the capital stock from time to time to an amount not exceeding $5,000,000.

The St. Lawrence Power Company derive their power under license from the Department of Railways and Canals, from a plant on the Cornwall canal at Mille Roches, Ontario. It is constructed to receive four generators of 1,350 h.p. each; but only two have been installed. They operate under 30 feet head. Their *maximum* load is 1,600 h.p., which means that, on their installed capacity, they have a surplus of nearly 1,100 h.p. and on their available capacity, they would have 3,000 h.p. to spare. The consumption is said to be divided as follows:

Cornwall	800 h.p.
Head of Cornwall canal	300 h.p.
St. Lawrence Paper Co., Mille Roches	300 h.p.
Lighting Cornwall canal	200 h.p.

As they sell the energy for $15.00 per horse-power per annum, it is evident that they have been waging a vigorous campaign to obtain new business. This plant is said to be taking its water through a channel not authorized in the lease granted by the Department of Railways and Canals.

A search in the offices of the Secretary of State, Ottawa, and of the Provincial Secretary, Toronto, failed to show that any annual or other reports have been filed by the St. Lawrence Power Company.

So far as the operations of the Canadian subsidiaries of the Aluminum Company of America are concerned, the St. Lawrence Power Company is a counterpart of the power-producing company in the United States known as the St. Lawrence River Power Company, with works at Massena, N.Y.

Officers.—George G. Foster, K.C., Pres.; E. W. T. Gray, Vice-Pres.; T. J. Coonan, Sec.-Treas.

Directors.—George G. Foster, K.C., Samuel W. Foster, Gardner Stevens, C. Gordon MacKinnon, E. W. T. Gray.

St. Lawrence Power Transmission Company

The St. Lawrence Power Transmission Company, Limited, was incorporated by special Act, 9–10 Edw. VII. Chap. 166, of the Parliament

of Canada, (assented to 4th May, 1910)*. This Company is empowered—subject to certain restrictions of the *Electricity Inspection Act*, 1907, and the *Railway Act*—to:

> "(a) construct, maintain, operate, use and manage conduits, tunnels, transmission lines, structures, buildings, machinery, plant, appliances, instruments and devices, and erect and maintain poles and towers, and lay and maintain pipes, cables, wires or other conductors and connect them with similar lines in other provinces and with similar lines in the United States for the purpose of importation into Canada only;
>
> (b) acquire by purchase or lease electricity and electric, pneumatic or other current, power or force, and may supply, distribute, sell, lease, contract for or otherwise dispose thereof for the purposes of light, heat or power or any other purpose for which electricity or electric or other power, current or energy can be used;
>
> (c) acquire such lands, easements and privileges as are necessary for the purposes of its undertaking."

The Company, by its enabling Act, has conferred upon it powers of expropriation in the counties of Frontenac, Leeds, Grenville, Dundas, Stormont and Glengarry and the city of Kingston, in the Province of Ontario, and in the counties of Soulanges, Vaudreuil and Jacques Cartier and the city of Montreal, in the Province of Quebec, for the purposes of its transmission line only.

The Company is not empowered to export electricity or electric or other power to the United States.

In the Act, there are provisions respecting the approval by Parliament of plans, specifications, etc., before construction may be begun. These limitations are set forth as follows:

> "The Governor in Council shall not give his approval to the construction of any further canals, water-courses, raceways, dams, wing-dams, sluices or other works on the river St. Lawrence by the St. Lawrence Power Company, under the provisions of Chapter 111 of the statutes of 1901, or otherwise, nor agree to or approve of any terms or conditions respecting the diversion of water or power from Canada, the consideration and rate to be paid therefor, the location of all dams and generating plant, the reservation of power for use in Canada, the safeguarding of Canadian canals, adjacent lands and navigation, the procuring of consent thereto from the British Government under the Ashburton Treaty or other treaty, unless and until the plans, specifications, and all terms and conditions shall have been first submitted to and approved by Parliament.
>
> "Nothing in this Act shall be deemed to constitute an approval by Parliament of any future development of water power by erecting a dam in or across the St. Lawrence river under Chapter

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* See Appendix IX, page 117.

111 of the statutes of 1901, intituled 'An Act to incorporate the St. Lawrence Power Company,' or otherwise; nor shall the Company hereby incorporated be authorized to transmit power generated by the St. Lawrence Power Company other than the power generated by and in connection with the works already constructed by the said St. Lawrence Power Company."

Capital Stock.—The capital stock of the Company is $250,000.

The incorporators are: Francis H. McGuigan, Toronto; James W. Rickey, Massena; William Chalmers MacLaren, Brockville; Isaac Phillip Wiser, Prescott; Peter Ernest Campbell and Archibald Denny, both of Cornwall.

For copy of the Enabling Act, see 9–10 Edw. VII. chap. 166.

Cornwall Street Railway, Light and Power Co. Ltd.

AND

Stormont Electric Light and Power Co. Ltd.

One named Andrew Hodge held from the Department of Railways and Canals, a lease, or leases, to generate power from the surplus water of the Cornwall canal, at hydraulic lots Nos. 3 and 4. This power was used for driving a flour mill, a woollen mill and a planing mill. Subsequently, the flour mill and the woollen mill privileges were taken over by the Cornwall Street Railway, Light and Power Co., and the planing mill privilege was taken over by the Stormont Electric Light and Power Co., Ltd.

Both the Cornwall Street Railway, Light and Power Co., and the Stormont Electric Light and Power Co., are controlled and operated by the Sun Life Assurance Co. of Montreal, which holds the bonds of these companies. The General Manager for both companies is Wm. Hodge, with head office at Cornwall, Ont.

The Cornwall Street Railway, Light and Power Co., was incorporated under Ontario Letters Patent, April 18, 1902, for the purpose of operating a railway in the town of Cornwall and township of Cornwall and to perform other functions provided for in the Act respecting the supplying of steam, heat, electricity, or natural gas for heat, light or power.

Capital Stock.—The capital stock is $200,000.

Board of Management: President, Samuel Hamilton Ewing; Vice-Pres., Abner Kingman; Directors, John Redpath Dougall, John McKergon and James P. Cleghorn (deceased Dec. 14, 1911; not yet replaced)

The Stormont Electric Light and Power Co. was empowered by Ontario Letters Patent, granted Sept. 23, 1887:

"To construct, maintain, complete and operate works for the production, sale and distribution of electricity for the purposes of light, heat or power in the said town of Cornwall and the township of Cornwall in the said county of Stormont and to conduct the same by any means through, under and along the streets, highways and public places of the said municipalities as any one or more of the said municipalities may by by-law authorize, with power to acquire, hold and use land, water-power and machinery and other personal property for the purposes of the said works and to sell, lease and otherwise dispose of the same and to distribute and sell electricity for light, heat or power and generally to have and exercise all the powers, rights and privileges conferred upon or appertaining to a company incorporated under the hereinafter mentioned Act."

The present Capital Stock is $50,000.

Board of Management: President, Samuel Hamilton Ewing; Vice-Pres., Abner Kingman; Directors, John Redpath Dougall, John McKergon and James P. Cleghorn (deceased Dec. 14, 1911, not yet replaced)

The Stormont Electric Light and Power Co., Ltd., is the distributing agent for the St. Lawrence Power Co., of Cornwall.

New York and Ontario Power Company

The New York and Ontario Power Company is not associated with the interests allied with the Long Sault Development Company, and the interests behind it have been very aggressive in opposing the operations of the Long Sault Company.

The New York and Ontario Power Company controls a power site situated on the St. Lawrence river near the town of Waddington, N.Y. This site is situated on a minor channel of the St. Lawrence river known as Little river,* which flows between the mainland of the state of New York and the large island in the St. Lawrence river originally called "Isle aux Rapide du Plat," but now, known as Ogden island. Early in the last century, and before any other artificial works were constructed on either side of the main stream, a dam was built across the channel of Little river opposite the village of Waddington. On April 1, 1808, the New York State legislature, by an Act (Chap. 121, Laws of 1808, N.Y.), conferred upon David A. and Thomas L. Ogden and their associates, the right to construct a dam and lock at the site above mentioned, and to use the water impounded by the dam for the generation of power for any commercial purpose. The powers conferred under this Act were limited to a term of 75 years. On the 17th of April,

* Not to be confused with the Little river between Sheek and Barnhart islands.

1826, an Act (Chap. 280, Laws of 1826, N.Y.), was passed in which it was set forth that:

> "David A. Ogden of the county of St. Lawrenec, *being proprietor of both sides of the branch of the river St. Lawrence, in the town of Madrid* [Waddington], and across which river he has erected a dam and locks in pursuance of an Act passed April 1st, 1808 shall, and he is hereby declared to be vested with all the rights of the people of this State to the lands situated below the said dam, and which by reason thereof has been rendered susceptible to improvement, and extending down the branch of the said river from the said dam to the navigable waters thereof, to have and to hold to the said David A. Ogden, his heirs and assigns forever."

These two Acts therefore vested in David A. Ogden, in perpetuity, all riparian rights on both sides of the channel of the Little river, and also the right to develop and utilize the natural flow of the said stream for the development of hydraulic power for any purpose whatsoever. Some time subsequent to the construction of the dam, David A. Ogden, or his heirs or successors, built a bridge connecting Ogden island with the mainland. This bridge, situated about 1,000 ft. above the dam, consists of an earth and dry wall embankment containing two openings for the passage of water. At the present time, this bridge is the controlling factor with respect to the water level in the upper reach of Little river.

All the rights and privileges originally held by David A. Ogden and his associates are now held by the New York and Ontario Power Co. This company has entered into a contract with the Hydro-Electric Power Commission of Ontario to supply various stated quantities of power for the consumption of certain municipalities in eastern Ontario.* The dam at Waddington is old and in a very dilapidated condition. The roadway and dam above referred to are shown in the accompanying illustration.

The nominal head for power development at Waddington, N.Y., is about 11 or 12 feet (11.6 ft.). The operating head will possibly be about 9 or 10 ft.

The New York and Ontario Power Company was incorporated April 18, 1906, in the state of New York, to furnish light and power to municipalities and industries in northern New York.

> "The objects are to be manufacturing, using and transmitting electricity for producing light, heat or power and in lighting streets, avenues, public parks and places, and public and private buildings

* For the terms of the proposed contract for the supply of 15,000 h.p. by the New York and Ontario Power Co. to the Hydro-Electric Power Commission of Ontario, see *Water-Powers of Canada*, Commission of Conservation, Canada, 1911, pp. 54-55.

Old Roadway | Ogden Island | Old Dam

Mainland

Old Dam and Roadway from Mainland to Ogden Island, Waddington, N. Y.

of cities, villages and towns within this state. The names of the towns, villages, cities and counties in which the operations of the corporation are to be carried on, are as follow:

The villages of Malone, Tupper Lake and Saranac Lake, in the county of Franklin, state of New York; the city of Plattsburgh in the county of Clinton, state of New York; the villages of Waddington, Madrid, Canton, Gouverneur and Potsdam, in the county of St. Lawrence, state of New York; the city of Watertown in the county of Jefferson, state of New York; the villages of Adams and Carthage, in the county of Jefferson, state of New York; the village of Booneville in the county of Oneida, state of New York; the city of Syracuse, in the county of Onondaga, state of New York; the city of Oswego, in the county of Oswego, state of New York."

The officers of the Company are: President, W. C. Connolly; Vice-President, James Thomson; Secretary, J. T. Heckenby; Treasurer, J. G. Allan, of Hamilton, Ont. Other directors, James A. Thomson, Hamilton, Ont., James Wilson, Fergus, Ont.; F. W. Gates, Hamilton, Ont.; D. J. Crichton, Jr., Ogdensburg, N.Y.; Resident Engineer, B. B. Tucker, Waddington, N.Y.

According to returns made to the Public Service Commission, Second District, Albany, N.Y., the funded debt actually outstanding Dec. 31, 1911, is $200,000; capital stock actually outstanding Dec. 31, 1911, $181,400. The authorized capital stock is $2,000,000.

For papers of incorporation, etc., see Appendix XV.

Newspaper Propaganda

The Long Sault power interests on the United States' side are said from time to time to have conducted a newspaper propaganda, designed to advance their projects. For example, the following is a copy of a despatch sent to the *Toronto News*, from Brockville, Ont., May 10, 1912, in which it is stated that Mr. Jas. W. Rickey, Chief Engineer of the Long Sault Company recently addressed a meeting in Cornwall dealing with hydro-electric matters.

"Brockville, Ont., May 10.—A delegation composed of members of the Boards of Trade of Brockville, Cornwall, Kingston, Prescott and other towns and cities in eastern Ontario will shortly seek an audience with the Provincial cabinet at Toronto for the purpose of setting forth the views of this district on the power situation. Later, the same delegation will appear before Premier Borden at Ottawa.

"Briefly, the claim of eastern Ontario is that it is paying taxes to support the work of the Hydro-Electric Commission and is receiving nothing in return. The delegation goes armed with briefs and arguments setting forth the desirability of passing legislation granting permission to dam the Long Sault rapids near Cornwall.

"Once developed, it is said the Long Sault would give ample power to every town in eastern Ontario.

"Mr. James W. Rickey, chief engineer at the Long Sault, told a meeting in Cornwall recently that Canada would be entitled to at least one-half of the power developed and that this company was willing to leave this question of the division of power, to engineers of the Canadian and American Governments."

The Mayor of Cornwall has stated that he knows of no meeting having been held at Cornwall. With reference to a delegation composed of members of the Boards of Trade of Cornwall, and other places, as asserted in the newspaper article, the President of the Board of Trade in Cornwall has stated that he has no knowledge of any plans for any delegation such as is referred to and he knows of no meeting, such as the *News* item describes as being addressed by Mr. Rickey, having been held in Cornwall.

Memorandum Respecting Treaty Rights of Canada in the St. Lawrence at the Long Sault*

The Treaty of Paris, 1783, defined, in part, the boundary between the United States and Canada as following from the point at which the forty-fifth parallel strikes the river St. Lawrence, "along the middle of the said river [St. Lawrence] into lake Ontario."

Treaty of Ghent, 1814

By Article VI. of the Treaty of Ghent, it was recited that:

"Doubts have arisen what was the middle of the said river, lakes and water communications and whether certain islands lying in the same were within the dominions of His Britannic Majesty or of the United States."

It, further, provided that to finally decide these doubts, they should be referred to two Commissioners, who should designate the boundary through the St. Lawrence, Great lakes and water communications.

The Commissioners proceeded without any fixed rule except that the line should be a water-line, and, therefore, should not divide any island. During the discussions, difficulties arose respecting the navigation of the water communications. In 1821, it was proposed that the final award should contain a joint declaration to the effect that they had acted on the principle that the navigation of the boundary waters should continue free and open to citizens of both powers, irrespective of the position of the boundary line, the declaration to be assented to by

* From memorandum by James White.

both Governments before the declaration was made. It seems, however, that, while the proposition was acceded to by the President of the United States, the British Minister at Washington declined to sanction it on behalf of Great Britain, on the ground that such a declaration by the Commissioners might serve to cast doubt on what was a matter of right.

The award of the Commissioners, dated June 18, 1822, was as follows:

> "The undersigned Commissioners appointed, sworn and authorized in virtue of the sixth article of the Treaty of peace and amity, between His Britannic Majesty and the United States of America concluded at Ghent on the twenty-fourth day of December, in the year of our Lord one thousand eight hundred and fourteen. . . . . Do decide and declare that the following described line is the true boundary which is more clearly indicated on a series of maps accompanying this report, exhibiting correct surveys and delineations of all the rivers, lakes, water communications and islands embraced by the sixth article of the Treaty of Ghent, by a black line, shaded on the British side with red, and on the American side with blue. . . . . is the true boundary intended by the two before mentioned treaties, that is to say;
>
> "Beginning at a stone monument erected by Andrew Ellicott, Esquire, in the year of our Lord one thousand eight hundred and seventeen, on the south bank or shore, of the said river Iroquois or Cataraqua, (now called the St. Lawrence) which monument. . . . . indicates the point at which the forty-fifth parallel strikes the said river, thence to and along the middle of the main [St. Lawrence] river, until it approaches the eastern extremity of Barnhart's island; thence northerly along the channel which divides the last mentioned island from the Canada shore, keeping one hundred yards distant from the island, until it approaches Sheek's island; thence along the middle of the strait which divides Barnhart's and Sheek's island, to the channel called the Long Sault, which separates the two last mentioned islands from the Lower Long Sault island;* thence westerly (crossing the centre of the last mentioned channel) until it approaches within one hundred yards of the north shore of the Lower Sault island; thence up the north branch of the river, keeping to the north of, and near, the Lower Sault island."

In the vicinity of the Long Sault rapids, Barnhart island, 1716 acres; Long Sault island, 1969 acres, and Croil island, 1859 acres, were awarded to the United States. Great Britain received Cornwall island, 1972 acres and Sheek island, 1135 acres. As the main channel of the St. Lawrence passes *south* of Barnhart island, the United States thus became possessed of both shores of the main channel of the St. Lawrence from the foot of Long Sault island to the foot of Barnhart island—a distance of eight miles.

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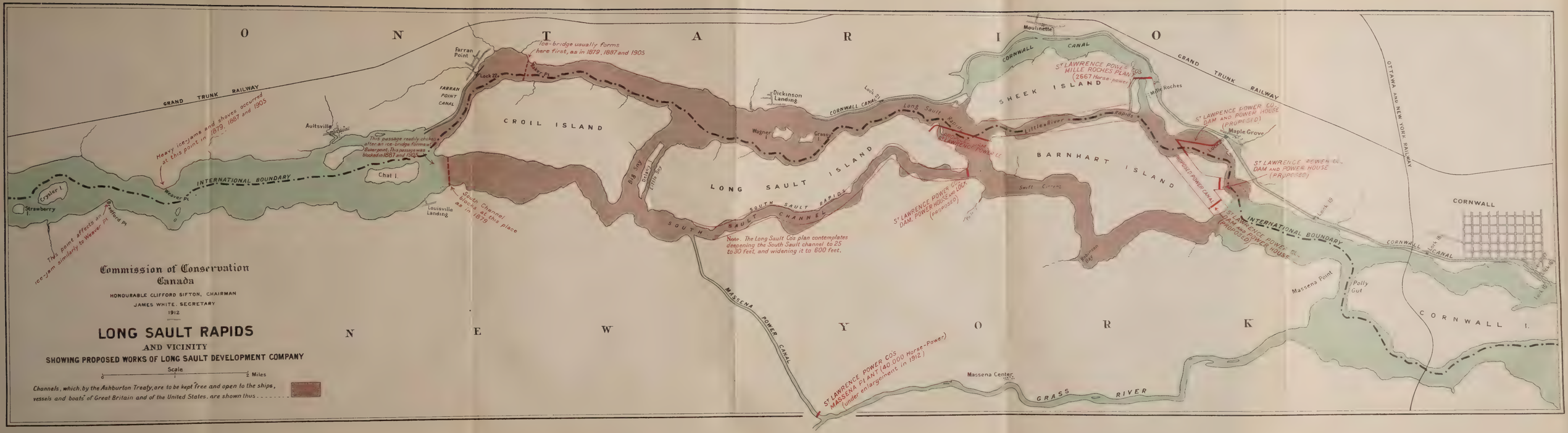
* Now called Long Sault island. "Upper Long Sault" island is now known as Croil island.

This unequal division was due to the anxiety of Great Britain to possess Wolfe island, opposite Kingston, Ont.* Possession of this island by the United States would have permitted the erection of fortifications, etc., that would have threatened the principal British naval station on the Great lakes.

* "When the survey was undertaken to decide the place of the above boundary line, several important questions arose not contemplated in the Treaty; among which was that as the middle of the river is a line equidistant from both banks of the river, this line would often intersect islands, which would give a boundary line on land, under circumstances very inconvenient to each power, especially on civil and criminal processes, illicit trade, &c. &c. It was therefore, determined that to whatever power the greater part of an intersected island should belong, that power should have the whole of the island, and thus avoid all of the above evils. This decision was approved and confirmed by the Foreign Office and at Washington. It may be said, by following the middle of the greatest navigable channel, a boundary line could have been readily established; but on my great surveys of this continent to the latitude of 60 degrees north, I examined almost all the great rivers from their sources to the eastern seas and the Pacific ocean, and found them all obeying the same physical law with the great rivers in Europe, and in a bolder manner. On this continent, the deep channel for 5 miles out of 6 miles will be found on the north side of the river. After the survey was finished this truth was forced on the United States Commissioner, and he insisted on the middle of the deep channel for the boundary line, but was kept to the letter of the Treaty. The Treaty of 1783 gave peace to the United States, but their treasuries were exhausted. To raise money the state of New York sold to the Holland Company large tracts of land, among which were all the islands in the river Cataraqui [St. Lawrence] from St. Regis to lake Ontario, which, by the boundary to be drawn, should belong to the state of New York.

The several naval commanders who had been in charge of Kingston harbour, the vessels on the lakes, &c., had sent to the Admiralty, from time to time, their opinions on the necessity of securing to Great Britain certain islands for the protection of the Navy, &c., at Kingston, &c. These were transmitted to the Foreign Office and forwarded to the British Commissioners, and every place pointed out by the Admiralty for the safety of our navy, &c., was obtained; the principal of which was Grande [Wolfe] isle, opposite to Kingston. By the Treaty, this island belonged to the United States and, on account of the Holland Company, was considered hopeless; but at the time the division of the islands took place, certain peculiar circumstances happened, which enabled the British Commissioners to exchange Grande isle above the Niagara Falls for Grande isle [Wolfe island] opposite Kingston, on condition of indemnifying the Holland Company by giving up British isles to make up 13,359½ acres—the difference in area between the two islands. This will account for several islands in the river Cataraqui being placed on the side of the United States.

As the obtaining Grande isle [Wolfe island] near Kingston was strongly recommended by the Admiralty, I paid more than common attention to the depth of water along its shores, and found the south side to be so shoaly that, in many places, at 100 yards from the shore there was only 4 or 5 feet of water. In order to have the free use of this side of the island it was proposed and agreed that the boundary line should be 100 yards from the shores of all islands, and if the space between the opposite shores was less than 200 yards then the boundary line should be the middle between the two shores, and the distance of 100 yards also gives free space for the construction of rafts, &c., to both nations.—(David Thompson, Astronomer and Surveyor under Articles VI and VII of the Treaty of Ghent; in *Ontario Historical Society Transactions*, I, 117.)


ONTARIO
NEW YORK
GRAND TRUNK RAILWAY
Farran Point
Ice-bridge usually forms here first, as in 1879, 1887 and 1905
Lock 22
Upper Pt.
FARRAN POINT CANAL
Aultsville
Heavy ice-jams and shoves occurred at this point in 1879, 1887 and 1905
This passage readily chokes after an ice-bridge forms at Buker point. This passage was blocked in 1887 and 1905
CROIL ISLAND
Chat I.
INTERNATIONAL BOUNDARY
Crysler I.
Strawberry
Weaver Pt.
Bedford Pt.
This point affects an ice-jam similarly to Weaver Pt.
South Channel blocks as in 1879
Louisville Landing
Dickinson Landing
Lock 21
CORNWALL CANAL
Long Sault Rapids
Wagner
Grass
Dalby I.
Little Sou
LONG SAULT ISLAND
SOUTH SAULT RAPIDS
SOUTH SAULT CHANNEL
Note. The Long Sault Cos plan contemplates deepening the South Sault channel to 25 to 30 feet, and widening it to 600 feet.
MASSENA POWER CANAL
St LAWRENCE POWER CO'S MASSENA PLANT (40,000 Horse-Power) (under enlargement in 1912)
Massena Center
GRASS RIVER
Moulinette
CORNWALL CANAL
St LAWRENCE POWER CO'S MILLE ROCHES PLANT (2667 Horse-power)
Mille Roches
SHEEK ISLAND
Little River Rapids
St LAWRENCE POWER CO. DAM AND POWER HOUSE (PROPOSED)
Maple Grove
BARNHART ISLAND
Swift Currents
Watson Bay
PROPOSED POWER CANAL
St LAWRENCE POWER CO. DAM AND POWER HOUSE (PROPOSED)
INTERNATIONAL BOUNDARY
Lock 18
CORNWALL CANAL
OTTAWA AND NEW YORK RAILWAY
CORNWALL
Massena Point
Polly Gut
CORNWALL I.
Commission of Conservation
Canada
HONOURABLE CLIFFORD SIFTON, CHAIRMAN
JAMES WHITE, SECRETARY
1912
LONG SAULT RAPIDS
AND VICINITY
SHOWING PROPOSED WORKS OF LONG SAULT DEVELOPMENT COMPANY
Scale
0 1 2 Miles
Channels, which, by the Ashburton Treaty, are to be kept free and open to the ships, vessels and boats of Great Britain and of the United States, are shown thus

Ashburton Treaty, 1842

In the negotiations preceding the Ashburton Treaty, the question of the Maine boundary overshadowed all other differences between Great Britain and the United States. As soon as they had reached a stage that portended a satisfactory settlement, Lord Ashburton and Mr. Webster took up the disputes respecting the boundary through the St. Mary river, through lake Superior and the water-communications between lake Superior and Rainy lake.

In making the concession of St. George (Sugar) island, in the St. Mary river, Lord Ashburton attached conditions of accommodation. On July 16, 1842, he wrote Mr. Webster:

> "In making the important concession on this boundary of the island of St. George, I must attach a condition to it of accommodation, which experience has proved to be necessary in the navigation of the great waters which bound the two countries; an accommodation which can, I apprehend, be no possible inconvenience to either. This was asked by the British commissioner in the course of the attempts of compromise above alluded to; but nothing was done, because he was not then prepared, as I am now, to yield the property and sovereignty of St. George's island.
>
> "The first of these two cases is at the head of lake St. Clair, where the river of that name empties into it from lake Huron. It is represented, that the channel bordering the United States coast in this part is not only the best for navigation, but, with some winds, is the only serviceable passage. I do not know that, under such circumstances, the passage of a British vessel would be refused; but, on a final settlement of boundaries, it is desirable to stipulate for what the commissioners would probably have settled, had the facts been known to them.
>
> "The other case, of nearly the same description, occurs on the St. Lawrence, some miles above the boundary at St. Regis. In distributing the islands of the river by the commissioners, Barnhart's island and the Long Sault islands were assigned to America. This part of the river has very formidable rapids, and the only safe passage is on the southern or American side, between those islands and the mainland.* We want a clause in our present treaty to say that, for a short distance, namely, from the upper end of Upper Long Sault island† to the lower end of Barnhart's island, the several channels of the river shall be used in common by the boatmen of the two countries.
>
> "I am not aware that these very reasonable demands are likely to meet with any objection, especially where the United States will have surrendered to them all that is essential in the boundary I have now to propose to you."

Mr. Webster conceded that these channels should be free and open to vessels of both countries, at the same time, stipulating for a similar

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* South Sault channel and main channel.

† Croil island.

agreement respecting the channel between Bois Blanc island—a Canadian island in Detroit river—and the Canadian shore. On July 27, Mr. Webster replied:

> "Besides agreeing upon the line of division through which these controverted portions of the boundary pass, you have suggested also, as the proposed settlement proceeds upon the ground of compromise and equivalents, that boats belonging to her Majesty's subjects may pass the falls of the Long Sault, in the St. Lawrence, *on either side of the Long Sault islands*,* and that the passages between the islands lying at or near the junction of the river St. Clair with the lake of that name shall be severally free and open to the vessels of both countries. There appears no reasonable objection to what is requested in these particulars; and, on the part of the United States, it is desirable that their vessels, in proceeding from lake Erie into the Detroit river, should have the privilege of passing between Bois Blanc, an island belonging to England, and the Canadian shore, the deeper and better channel being on that side. . . . . What has been agreed to, also, in respect to the common use of certain passages in the rivers and lakes, as already stated, must be made matter of regular stipulation."

These terms Lord Ashburton accepted, at the same time observing:

> "I should remark, also, that the free use of the navigation of the Long Sault passage on the St. Lawrence must be extended to below Barnhart's island, for the purpose of clearing those rapids."

Art. VII of the Ashburton Treaty provided that:

> "It is further agreed that the channels in the river St. Lawrence on both sides of the Long Sault islands and of Barnhart island, the channels in the river Detroit on both sides of the island Bois Blanc, and between that island and both the American and Canadian shores, and all the several channels and passages between the various islands lying near the junction of the river St. Clair with the lake of that name, shall be equally free and open to the ships, vessels, and boats of both parties."

From the foregoing it is obvious that the United States is bound by the terms of the Ashburton treaty to keep the channels on *both sides of Long Sault, Barnhart and Croil islands "free and open to the ships, vessels and boats of both parties;"* and, further, that no constructions which would interfere with navigation in the slightest degree, can be erected in any of the channels named.

The St. Lawrence river constitutes the great navigable highway from the Atlantic to the heart of North America. The preservation

* Croil and Long Sault islands.

Steamer in a Turbulent Portion of Long Sault Rapids

of the integrity of this highway is a matter demanding a national concern and action, both on the part of the Government of the Dominion of Canada and that of the United States.

The time is approaching when it will become necessary to secure wide and deep channels for vessels by canalizing this great river. When such a course does become necessary, enormous and valuable water-powers will be created which will help, if not more than entirely, pay for the cost of these improvements.

That the rights of navigation are paramount to those of power development, has been laid down, authoritatively, as a fundamental doctrine. It is necessary, therefore, that no initial step be permitted to be taken by any interest, or interests, that may create a condition of affairs which may in any way be a menace to navigation at present, or which might forbid or interfere with its improvement in the future.

Present Danger in Proposal to Dam the South Sault

The great danger at present—and it is a real danger—to Canada's rights in the St. Lawrence river, consists in the desire on the part of, and the efforts being made by, the Long Sault Development Company to construct a dam in the South Sault channel. The Company also proposes to construct a power house and lock across the channel, between the foot of Long Sault island and the main shore. This is part of the Company's large project to utilize the whole power that can be developed at the Long Sault.*

Works that Plan Involves

This important project involves the erection of a dam some 3,800 feet long, between Barnhart island and the north-easterly end of Long Sault island. The channel between Barnhart island and Sheek island is to be widened to approximately 1,000 feet in width, and used for a power canal to convey water to the forebay of the power works which it is proposed to erect at the eastern end of Barnhart island. At this point it is proposed to build a dam, having

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* The Long Sault Development Company, on the American side, has acquired practically all of Barnhart island and the eastern half of Long Sault island together with riparian rights around the western end of the latter, also nearly 2,000 acres of land on the main shore, extending from a point opposite the eastern end of Barnhart island, upstream to the Massena canal, a distance of about eight miles. Both companies are acquiring land on their respective sides of the river to elevation 215 feet above sea-level, which will be well above the proposed river-level; they are also securing riparian rights along all tributaries of the St. Lawrence river, where there is any possibility of riparian damage.

the shape of the letter **V**, approximately 1,450 feet long and adjacent, on the Canadian side, to Lock 20 of the Cornwall canal. It is proposed at this Barnhart island power-site to utilize a head of about 40 feet. The proposed dam in the South Sault channel would utilize a head of about 35 feet. (See accompanying plan for general scheme of proposed works.)

The Company may also find it desirable to raise the level of the dam in the South Sault channel, so as to back the water up at the intake of the present canal leading to the power house at Massena, N.Y. The nominal head at the Massena power house is about 30 feet, but it is stated that some three or four feet of head is lost in the canal. At the present time this Massena power canal is being enlarged by dredging to permit the passage of an increased quantity of water to be delivered at Massena, where a new power house is under construction.

Mr. Rickey's Statement

With respect to the extensive development proposed by the Long Sault Development Company, it is interesting to note the statement made, before the Committee on Rivers and Harbours of the United States House of Representatives, by Mr. James W. Rickey, Chief Engineer of the Company.

> "This entire development," said Mr. Rickey, "is laid out with the idea of utilizing every bit of power that is available at this point ultimately—perhaps not while we are alive—but there is nothing done in this entire development that will hinder the complete development of the potentiality of the St. Lawrence river at this point. That is really a very important factor. Many water powers in the past, and comparatively a short time ago, have been imperfectly developed; they have just skimmed the cream off and prevented a complete development."

And, with regard to the project, Mr. G. R. Malby, who has introduced bills into Congress for the Company, says:

> "There is just one more point. There seems to be some idea that the water which goes to the north of Barnhart island is to be developed half in Canadian territory. If you get on to the scheme you will see that is not quite correct. The proposition, as Mr. Rickey will point out, is that *the great power house of the entire scheme is wholly in American territory, at the foot of Barnhart island; although the water itself passes through a portion of Canadian territory, the development takes place in the United States.*"

If the "great power house of the entire scheme is wholly in American territory" it does not, on the face of it, appear that Canada would have any control whatever over the Company.

Massena Power Canal, to Convey Water from St. Lawrence River to the St. Lawrence River Power Company's Plant at Massena, N. Y.

Development of Power a Factor

The great amount of power that can be developed at the site in the South Sault channel is sufficient inducement to a large corporation to construct such power works, even if there were no additional advantages to be obtained through further development in this vicinity. As has been pointed out in the earlier portion of this report, provision has been made to raise $1,550,000, which will be available for preliminary work connected with the proposed dam in the South Sault channel. It has also been stated that, if possible, this dam would be erected without securing any consent from Canada. If the Long Sault Company were able to erect such works in the South Sault, it would then be very difficult to carry on any general scheme of improvement of the river as a whole, unless enormous sums were paid for damages. As the works would be altogether within "American territory," expropriation would be impossible.

The construction of the proposed works would be a great menace to the navigability of the St. Lawrence river and the Great Lakes system. The vested rights created by the erection of such works would render extremely difficult—if not impossible—the carrying on of works for the improvement and deepening of the St. Lawrence. When that time comes, such improvements should be made by Canada, or the United States, or both. In no event and in no degree should the control of the St. Lawrence be allowed to pass into the hands of private or corporate interests.

Opinions Respecting Ice Conditions

While the calculations and opinions of engineers are to be respected, nevertheless, when they are expressed by way of *minimizing* the possible disastrous effects of damming the St. Lawrence, it is well to discount such opinions. The magnitude of the St. Lawrence river, and the tremendous forces latent in it, may act in ways as yet undiscerned by members of the engineering profession. One is reminded of the prediction of engineers with respect to the regimen of the lower Niagara river: how the power house of the Ontario Power Company was placed "above all possibility of being reached by flood water;" and, yet, after the power house was constructed, the water, when blocked by ice, rose in the lower river and flowed over the *roof* of the power house. A more recent and striking case of floods occurring which were wholly out of the reckoning of engineers, is to be found in the devastating inundation in the state of Ohio, March, 1913. Nature does not permit herself to be harnessed without, frequently, making strong protests.

Those who are favouring the construction of power works in the Long Sault rapids, have repeatedly stated that conditions in the river

will be much improved by the construction of the works. They have stated that disastrous floods caused by ice jams, such as occurred in the years 1840, 1879, 1887, 1895, 1898, 1901 and 1905, will not be likely to recur. To use the words of Mr. Rickey:*

> "Ice conditions below the dams will be much improved, thus reducing danger from the annual ice and floods of Cornwall. The river above the dams will be kept free from ice jams, so that a repetition of the floods of 1887 and 1905 will not occur again."

Mr. Rickey, however, elsewhere states, in effect, that in the absence of the proposed construction works of the Long Sault Company:

> "It is not at all improbable that a flood, whose effects will be far more disastrous than that of 1887, may occur."

Factors Causing Ice Jams

The South Sault channel has repeatedly been entirely blocked with ice. If the level in this channel were raised—as it would be by the dam—the ice would probably pile up on the west end of Long Sault island and be thrown over against the retaining banks of the Cornwall canal. The effect of such a catastrophe is beyond calculation.

Mr. Rickey has stated with respect to ice jams:

1. "That nearly all ice bridges between Croil island and the main shore were *artificially* formed by the riverside inhabitants.
2. "That the 1887 flood, the worst on record, was started artificially."

It seems clear, however, that to start an ice blockade it is not necessary to swing a bay of ice out into the river. When a constant stream of floating ice is coming down and lodging against a dam, the surface ice will at times, collect in sufficient quantities to bridge the river and completely block it for miles up stream. *The proposed Long Sault dams would answer all the requirements for ice-jam conditions now served by an ice bay which has been artificially caused to block the river.*

A Fallacious Argument

The advocates of the Long Sault dams have contended that natural phenomena have already been manifested in the St. Lawrence river, which phenomena are said to be a counterpart of those which would take place if the dams were in place. For example Mr. Rickey, says:*

> "It is a matter of history that the main river channel, north of Long Sault, never becomes congested with ice even when the backwater, caused by the lake St. Francis ice jam, obliterates the rapids, thereby creating conditions essentially the same as will be created by the proposed dams."

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* For Mr. Rickey's statements in full, see Appendix XXVI, page 260.

Commission of Conservation
Canada

HONOURABLE CLIFFORD SIFTON, CHAIRMAN
JAMES WHITE, SECRETARY
1913

MAP SHOWING POSITION OF

LONG SAULT WATER POWER

WITH REFERENCE TO ONTARIO, QUEBEC AND UNITED STATES

Scale
0 25 50 75 100

Red circles show distances from Long Sault Rapids
Water-powers less than 1,000 horse-power, shown thus ●
Water-powers more than 1,000 horse-power, shown thus 3●
(Red figures indicate power in thousands of horse-power)

Base map from plates of Map of Dominion of Canada. Dept. of Interior.

The great fallacy in this contention is this: Certain conditions exist in the St. Lawrence river; it is contended that, exceptional circumstances —such as an ice jam at lake St. Francis—may result in the same conditions as would occur if the dams were already in place. But, if the dams had already been in place, they would have constituted the initial point at which ice conditions would begin to manifest themselves. In other words, the effects of a back-water sufficiently high to "obliterate the rapids" might be created above the dams and with most disastrous results.

Freeing River of Ice Artificially

Again, Mr. Rickey has stated that it will be possible and feasible to keep the St. Lawrence river free from ice by artificial means. To quote:

> "The St. Lawrence River Power Company kept the South Sault channel open during the winters of 1903 to 1906 inclusive. Even the north-west winds caused practically all the ice in the river to pass down the channel. Before and after the above dates, no attempt was made to keep this channel open and every winter it was badly congested with ice jams. This shows conclusively that it is practicable to keep the river channels open, provided the work is undertaken with properly equipped crews. In like manner it will be possible to keep open the main river channel on each side of Croil island after the proposed dams are built, thereby removing all possibility of ice floods in Morrisburg for all future time."

It would certainly not be advisable to increase the tendency to serious ice-jam conditions, hoping to compensate by removing the ice by artificial agency, especially when that agency introduces to so large an extent the personal element. Assuming Mr. Rickey's statements to be accurate, it is evident that any accident that suspended the operations of his ice-breakers would result in the river being badly congested with ice jams.

Effect of Dams on Ice Jams

The creation of large, comparatively still pools above the various dams is an ideal condition making for the early freezing over of these bodies of water, and this, in turn, would very materially facilitate the formation of large ice jams early in the winter, so that if the dams were built, the jam conditions would start much earlier in the season, a much larger accumulation of ice would result, and the heavy falls of snow would have a longer period in which to collect and to contribute to the ice masses which make for flood conditions.

Prof. H. T. Barnes, of McGill University, who has devoted several years to scientific study of the ice conditions in the St. Lawrence, views

with apprehension the creation of any artificial obstruction at this point. Regarding it he says:*

> "The construction of the proposed dams now under consideration would merely carry the ice packs further back into the narrow parts of the river, where the first rush of frazil ice in the autumn would be unable to distribute over the wide area of lake St. Francis. It is true that the raising of the water level by the proposed dams would drown out the main rapids, but this would in no way affect the swift currents above, and would not prevent the winter's accumulation of frazil and anchor ice, over at least ten square miles of open water, from forming an ice pack back of the dams. In the spring, all this ice would be held back by the dams until it melted in April, and might seriously delay the opening of navigation through these waters.
>
> "No man can determine the serious consequences which might result from introducing these artificial dams in the narrow portions of the river with such an extent of open water above. *Nature asserts herself with irresistible force when the struggle between water and ice takes place in so mighty a river as the St. Lawrence.*"

Improving the Tourist Traffic

In addition to the references that have been made by the Commission of Conservation, and other organizations, respecting the preservation of the scenic beauty of the river, it is interesting to note that Mr. Rickey says:

> "Under the present conditions the Long Sault is seen by tourists during the short summer season of about four months, and then only for a very few minutes as they pass rapidly in a boat. Under the proposed conditions the scenery adjacent to the dams may be enjoyed by tourists throughout the year."

It is not, on the face of it, apparent that the existence of the dams will so alter winter weather conditions as to render the rapids more attractive to tourists than they are at present.

Physical Data

In his testimony before the Rivers and Harbours Committee, Mr. Rickey stated that the average discharge of the St. Lawrence river is about 255,000 cubic feet per second, at which stage about 48,500 second-feet, or 19 per cent. of the total flow, passes through the South Sault channel, 76 per cent. through the main channel between Long Sault and Barnhart islands, and 5 per cent through Little river, the channel between Barnhart and Sheek islands.

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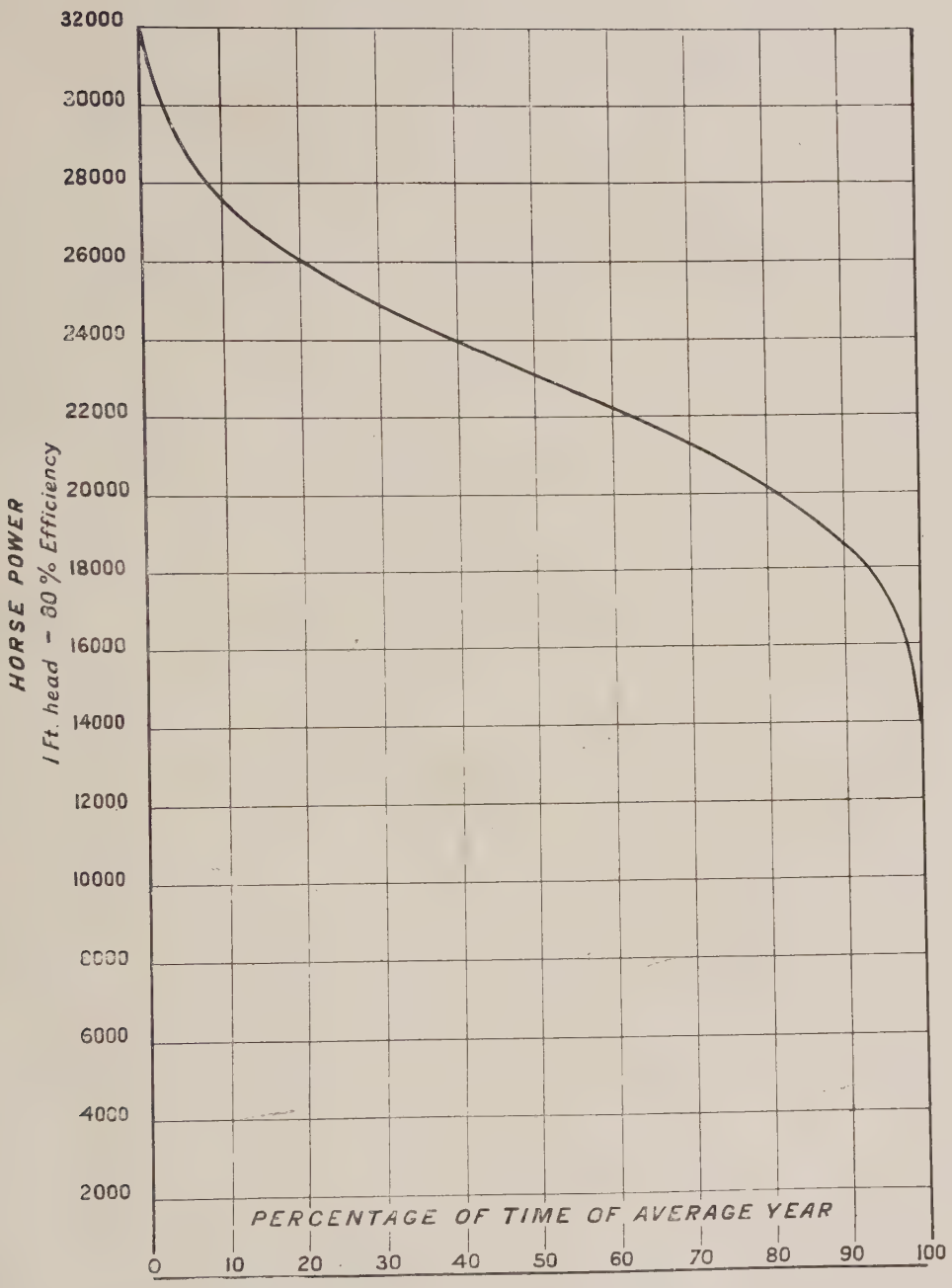
*See appendix XXV, page 252, with map.



Horse-Power Per Cent. Time Curve of St. Lawrence River at its Head. For Forty-Eight Years Period: 1860-1907, inclusive

The Long Sault Development Company maintains self-recording gauges at the following stations. The readings here given, taken on Oct. 1, 1911, at 12 o'clock noon, may be considered as typical of the St. Lawrence slope:

Ogden island	223.60
Waddington	212.40
Bradford point	206.40
Head of Long Sault island (Delany id.)	201.20
Canal intake	198.50
North side of Long Sault island	190.28
Polly creek	169.70
Mouth of Grass river	154.55
Head of Grass river	161.90

The change in level in the Little Sault channel from the head of Long Sault island to Polly creek would give, as per above table, a head of 31.9 feet.

The highest water elevation yet recorded by the gauges at Bradford point was 209.9 on June 4th, 1912. The lowest water elevation at Bradford point was 205.8 on October 7th, 1911.

The gauge elevations are referred to mean sea-level as determined by the United States engineers. The gauges are connected by lines of levels to bench mark No. 35, situated near the canal intake.

For discharge data, formulæ, etc., consult Report on the Regulation of lake Erie submitted by the International Waterways Commission.*

Conclusion

The Commission of Conservation opposes the granting of any charter to dam the Long Sault, on the following grounds:

(1) Inasmuch as the Ashburton treaty provides that "the channels in the river St. Lawrence on both sides" of Long Sault, Croil and Barnhart islands "shall be equally free and open to the ships, vessels and boats" of Great Britain and of the United States, no constructions which would interfere with navigation in the slightest degree can be erected in any of said channels without the consent of Great Britain.

(2) It is quite possible that serious damage would result from the construction of the works. Engineers have, it is true, given an opinion that there is no probability of such damage. On the other hand, the

* See Report of the *International Waterways Commission* on the *Regulation of Lake Erie*, with a discussion of the *Regulation of the Great Lakes System*, together with Appendix, tables and plates, Ottawa, 1910. Also see list of reports, maps, etc., relating to the St. Lawrence River in *Water-Powers of Canada*, Commission of Conservation, Ottawa, 1911, p. 363 *et seq.*

opinion of the residents along the shore and the most experienced navigators and observers is apparently almost unanimous in holding that the probability of serious damage is very strong. With all respect to the engineers who have given their opinions, it is submitted that the question is not an engineering problem and that no data exist for the formation of a reliable engineering opinion. No engineer can tell where or how ice will be formed when in our rigorous climate the flow of a mighty river is interfered with. It is a fact that slight interference has in former years caused great damage from floods and ice jams. The possible total stoppage of the flow of the river as a consequence of the works contemplated is a contingency which cannot be said to be impossible or remote. Such a stoppage would cause enormous damage to private property and would imperil the Cornwall canal, which is an integral and essential part of the all-Canadian water route from lake Superior to the sea.

It does not appear necessary to express an opinion as to whether the weight of evidence or probability is in favour of the view expressed by the engineers or that expressed by the residents of the locality who have intimate knowledge of the history of the river for many years past. The fact that there is any—even the slightest—difference of opinion is a sufficient reason for condemning the proposal. No risk whatever should be incurred in a matter of such vital importance.

(3) The proposed diversion of water by the dam between the Long Sault island and Barnhart island would take from the main navigable channel between Barnhart island and the United States mainland about 50 per cent of its water. The effect of such a diversion of water from the navigable channel is impossible to estimate. It can, however, be stated with certainty that the navigability of the channel would not be improved by such diversion.

(4) The construction of the dams in question will result in compelling navigation (other than by the Cornwall canal) to follow a new route known as the South Sault channel. Experienced navigators are of the opinion that this route will be much inferior to that now followed.

(5) The time will undoubtedly arrive in the history of Canada when deeper navigation upon the St. Lawrence will require to be provided for by the Canadian Government. Should the works proposed by the St. Lawrence Power Company be constructed, the Government would no longer have a free hand in undertaking such an enterprise.

The vested rights of the Company would require to be considered. Should the engineering plans adopted for improving and deepening navigation interfere with or damage the works of the Company, which is reasonably certain to be the case, then the Government would be under the necessity of expropriating such works and paying an enormous

sum by way of damages. Moreover, it is not clear that such expropriation could be had on any terms. The international character of the works might prove an insuperable bar, in which case the Government would be without remedy, and the improvement of navigation could not be effected.

(6) The proposed scheme of the St. Lawrence Power Company contemplates making use of the Canadian side of the river simply as a convenient landing place for a dam. A very slight examination of the plans of the Company is sufficient to make it clear that only a small portion of the contemplated expenditure will take place in Canada and only a very small proportion of the total power developed, will be developed in Canada.

(7) Looking at the whole scheme, it does not appear that any serious attempt can be made to show that Canadian requirements or Canadian interests are an appreciable factor in the plans of the Company. The plans contemplate the absolute monopolization of the whole power available from the rapids with a minimum consideration of Canadian interests.

(8) No market exists at the present time upon the Canadian side for the power proposed to be developed, or for any appreciable portion thereof. When any large quantity of power is required in the territory tributary to the proposed works it can be otherwise provided. There is, within the radius of economic transmission, abundant power available for development in purely Canadian territory without interfering in any way with the St. Lawrence river.

(9) Should the time come when further power is demanded by Canadian interests, and the placing of a dam across the St. Lawrence river is determined upon, one-half of the power to be generated thereby will belong of right to Canada and should be permanently retained for Canadian use without any exception or qualification.

(10) The suggestion that power can be generated on the American side, or generated on the Canadian side and exported to the United States, and that thereafter, when it is required in Canada the Company can be ordered to deprive its United States customers of the power and deliver it in Canada, is regarded as being entirely illusory. If the power is used in the United States, industries will be built up and vested interests created thereby, which it will be impossible to ignore. The attempt to enforce an order for the delivery of power on the Canadian side after it had for years been exported to, or used in, the United States would lead to serious difficulties. The case is not the same as if the Company and its works were wholly within Canada. If the Company desired to avoid or resist such an order, no means would exist of enforcing it

without resorting to steps which would be a sure road to international complications.

(11) Although not at present required for actual use, the power possibilities of the St. Lawrence at the Long Sault are very great, and the time will undoubtedly come when they will be of enormous value. The present proposition contemplates giving away this valuable asset, without any substantial consideration, to a foreign company for its private financial advantage.

(12) The obvious conclusion from the facts above recited seems to be, that *the plain duty of Canada is to maintain her rights of ownership and jurisdiction absolutely unimpaired and untrammelled.*

Looking Up-stream near Entrance to Massena Canal, Showing South Sault Blocked with Ice, 1911.
The Brush projecting from the Ice Indicates Roadway

APPENDICES

APPENDIX I

ACT OF INCORPORATION

OF THE LONG SAULT DEVELOPMENT COMPANY, BEING CHAPTER 355 OF THE LAWS OF THE STATE OF NEW YORK. THIS ACT BECAME LAW ON MAY 23RD 1907, 3D. RDG. 629, No. 626, 1043, 1137, 1647, 1678, INT. 541.

AN ACT

TO incorporate the Long Sault Development Company, and to authorize said company to construct and maintain dams, canals, power-houses and locks at or near Long Sault island, for the purpose of improving the navigation of the St. Lawrence river and developing power from the waters thereof, and to construct and maintain a bridge, and carry on the manufacture of commodities.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Michael H. Flaherty, Frank S. Smith, Henry H. Warren, Walter F. Willson and John C. Crapser, and all such persons as are or may hereafter be associated with them, and their successors, are hereby constituted a body corporate and politic by the name and style of the "Long Sault Development Company," for the purpose of erecting, constructing, maintaining, operating and using, in connection with the St. Lawrence river, a dam or dams, a canal or canals, a reservoir or reservoirs, and a power-house or power-houses, and works appurtenant thereto, at or near Long Sault island, in the county of Saint Lawrence, and of erecting and constructing a lock or locks, and works appurtenant thereto, at or near the same place, all for the development of electrical power and energy, and the permanent improvement of navigation on the St. Lawrence river at and above and below said place; and also of constructing and maintaining a bridge upon or in connection with said works, and of carrying on the manufacture of commodities with the said power.

2. Said corporation shall have power:

(1) To have perpetual succession;

(2) To have a common seal and alter the same at pleasure;

(3) To acquire, by grant, gift, purchase, devise, bequest or other lawful means, and to hold and dispose of such property as its purpose shall require, subject to such limitations as may be prescribed by law;

(4) To appoint such officers and agents as its business shall require, and to fix their compensation;

(5) To make by-laws not inconsistent with any existing law, for the management of its property, the regulation of its affairs, the transfer of its stock, and the calling of meetings of its members;

(6) To borrow money and contract debts, when necessary, for the transaction of its business or for the exercise of its corporate rights, privileges or franchises, or for any other lawful purpose of its incorporation; and it may issue and dispose of its obligations for any amount so borrowed, and may mortgage its property and franchises to secure the payment of such obligations or of any debt contracted for said purpose, subject in all respects to the provisions of section two of the stock corporation law.

(7) Said corporation shall have all the other powers, privileges and franchises now or hereafter conferred by the general, stock and business corporations laws of the state of New York.

3. Said corporation shall have the right to erect, construct, maintain, operate and use all such dam or dams, canal or canals, reservoir or reservoirs, gates, sluices, trunks, pipes, bulkhead piers, flumes, abutments, and other works appurtenant thereto, as may be proper or useful for the purpose of the development of water-power, and of electrical power and energy therefrom, at such point or points upon or adjacent to the south shore of the St. Lawrence river, near Long Sault island or Barnhart island, and upon the said islands, or either of them, and between said islands, and between said islands or either of them and the shores of the said river and Sheek island (but not across the international boundary line unless consented to by the Dominion of Canada) as may be selected by said corporation, and also in and upon so much of the said river and the bed thereof as lies to the south of the international boundary line, at or near Long Sault island or Barnhart island, either independently or in connection with like works now erected, or to be erected, in so much of said river and the bed thereof as lies to the north or Canadian side of said international boundary line, and upon and adjacent to the northerly shore of said river; and to erect, construct, maintain, operate and use a power-house or power-houses, and conductors, cables, wires, insulators and other appliances in connection with the said works for the development of electrical power and energy; and also to take and use the waters of said river at and above the points of location of said works heretofore authorized, and to construct and maintain upon, over and in connection with said dam or dams and other works, a bridge or bridges across or partly across the St. Lawrence river, with the approaches

thereto, for the use of foot passengers, animals and vehicles, and to charge reasonable rates of toll for passage thereon; the said rights being granted upon the express condition that said corporation shall make just compensation to all persons injured by the exercise of the rights and privileges heretofore granted, and that said corporation shall also erect and construct a lock or locks as may be required by the United States of America, and shall provide electrical power and energy for the maintenance, operation and use of said lock or locks, free of charge, and shall in all other respects perform, fulfil and abide by all and singular the conditions and provisions of this act, and also of any act of the Congress of the United States relating thereto, and also upon condition that the rights hereby granted shall never be so used as to impair or obstruct the navigation of the St. Lawrence river, but, on the contrary, that such navigation shall be preserved in as good condition as, if not better than, the same is at present, regard being always had to the amount of the natural flow of water in said river as affecting its navigability from time to time.

4. After the Congress of the United States shall authorize the construction of dams, locks and canals hereby authorized and after the payment by said corporation into the treasury of the State of the fixed sum of ten thousand dollars the commissioners of the land office shall, upon application of said corporation, grant unto it the title and interest of the people of the State in and to lands under the waters of the St. Lawrence river to be covered or occupied by said works and locks and power-houses, provided, however, that any of the lands of the State which may be so conveyed to said corporation shall be forfeited and title thereto shall revert to the State unless the same are actually used by said corporation and covered by its dams, canals, reservoirs, gates, sluices, trunks, pipes, bulkheads, piers, flumes, abutments or other works appertaining thereto, or are necessary to the enjoyment for said purposes of any lands so used or covered, within fifteen years from the conveyance thereof by the commissioners of the land office to said corporation under authority of this Act, and in consideration of the conveyance so made under the authority of this Act, as well as for the rights, and privileges hereby granted, the said corporation in addition to the payment aforesaid shall pay into the treasury of the State for the year nineteen hundred and ten the fixed sum of fifteen thousand dollars, and for the year nineteen hundred and eleven the fixed sum of twenty thousand dollars. For each year after nineteen hundred and eleven the said corporation shall pay at the following rates upon the average amount of electrical horse-power generated during such year under the authority of this Act, that is to say: Upon all amounts up to twenty-five thousand electrical horse-power, at the rate of seventy-five cents per horse-power;

Upon all amounts in excess of twenty-five thousand electrical horse-power and up to one hundred thousand electrical horse-power, at the rate of fifty cents per horse-power; upon all amounts in excess of one hundred thousand electrical horse-power, at the rate of twenty-five cents per horse-power. In case said corporation shall generate or develop water-power as mechanical power, without transforming the same into electrical power, then for so much of said water-power as shall be so generated or developed, payment shall be made at the above mentioned rates per mechanical horse-power.

In determining the average amount of electrical horse-power generated and the average amount of mechanical horse-power generated or developed in any year, for the purpose of determining the amount to be paid to the state, no day nor hour during which the works of said company are not in substantial operation shall be included in the total time for which such average is to be determined as the average for the year. In case the amount which would be payable at the rates aforesaid for either of the years, nineteen hundred and ten or nineteen hundred and eleven, upon the average amount of power generated during such year shall exceed the fixed sum hereinbefore required to be paid for such year, the said corporation shall also pay the amount of any such excess; and if for any year after nineteen hundred and eleven the amount payable at rates aforesaid is less than twenty-five thousand dollars, then said corporation shall pay for such year the sum of twenty-five thousand dollars instead of the amount that would be payable at the rates aforesaid. Said amounts for each year shall be payable on or before the first day of February in the following year, and within ten days before the same shall become payable the said corporation shall deliver to the state engineer and to the state treasurer a verified statement showing the average amount of electrial horse-power generated, and the average amount of mechanical horse-power generated and not transmuted into electrical horse-power, by said corporation under the authority hereby granted, during the year ending on the thirty-first day of December next preceding the date of making such statement. The books or other records of said corporation, showing the amount of power so generated, and its works and plant shall at all times be open to inspection and examination by the State Engineer for the purpose of verifying or disputing the correctness of any such statement.

The State Engineer may prescribe the form of records to be kept by said corporation, and the character of measuring instruments and devices to be used and a reasonable standard of the accuracy thereof and the methods by which said accuracy is to be determined. Said corporation shall keep such records and shall provide and use such instruments and devices and have the same tested accordingly.

If any dispute shall arise in respect to the amount payable for any year at the rates aforesaid the court of claims shall have jurisdiction to hear and determine the same.

In case the said corporation shall fail to pay any amount due hereunder within sixty days after the same is payable as herein provided, in addition to any other remedies which may exist by law, the rights and privileges hereby granted may be forfeited.

The payments above specified are based upon the assumption that the said corporation under the authority of this Act, subject only to the lawful control of the United States Government, may use for the purposes herein specified, at the places herein mentioned, all of the waters of the St. Lawrence river south of the international boundary line, but in case said corporation shall at any time be compelled to make any payment to the Dominion of Canada or the province of Ontario for the use by said corporation of any portion of said water to generate power as authorized by this Act, said corporation shall be entitled to an equitable readjustment of the rate of compensation to be paid to the state for that portion of the said water for the use of which said corporation shall be compelled to make payment to said Dominion or Province. Such readjustment shall be made by arbitrators, one of whom shall be appointed by the said corporation and one by the governor of the State within thirty days after the receipt by him of written notice of such appointment by said corporation, and in case of their failure to agree the two said arbitrators shall choose an umpire. The decision of the arbitrators, or of the umpire, shall be made in writing in duplicate, one copy shall be filed with the State Treasurer and one delivered to the said corporation; such decision shall be final and binding on both parties, and from and after a date to be fixed therein, payments shall be made in accordance therewith, and pending such decision payments shall be made for each year at the rates aforesaid.

5. Said corporation may at any time, with the consent of the holders of at least two-thirds in amount of its capital stock at the time outstanding, given in writing or at a meeting of such stock holders duly called for that purpose, sell or convey all or any portion of its property and assets, and the franchises and rights appurtenant thereto, upon such terms as may be consented to as aforesaid, but subject always to all the conditions and provisions of this Act.

6. The existence of said corporation shall be perpetual.

7. The capital of said corporation shall be one million dollars, divided into ten thousand shares of the par value of one hundred dollars each, but said corporation shall not begin business until two hundred and fifty thousand dollars, par value, of the capital stock shall have been actually subscribed and paid for in cash, nor until the organization tax provided by the general laws of the state of New York shall have

been paid to the State Treasurer; and upon any increase of said capital stock such tax upon such increase shall also be paid.

8. The number of directors of said corporation shall be five. Said directors shall hold office for the term of one year after their election and until their successors are elected and qualified. Michael H. Flaherty, Frank S. Smith, Henry H. Warren, Walter F. Willson, and John C. Crapser shall be the directors of said corporation for the first year and until their successors are elected and qualified. The first election shall be held on the first Monday after the third Thursday of February, in the year nineteen hundred and eight. Any vacancy in the board of directors occurring before the first election shall be filled by vote of the remaining directors. The number of directors may be increased as provided by law.

9. The said corporation shall begin the work of constructing its dam pursuant hereto within one year after the Congress of United States shall authorize the construction of dams, locks, and canals hereby authorized, and in case such construction shall not be so begun the grants, rights and privileges hereby granted may be forfeited.

10. This Act, and all the terms, conditions and provisions thereof, shall apply to the successors and assigns of the incorporators named in the first section thereof.

11. This Act shall take effect immediately.

APPENDIX II

OPINION

By Hon. Thomas Carmody, Attorney General of the State of New York, Relative to the Constitutionality of the Charter of the Long Sault Development Co. Rendered to the Senate of the State, December 30, 1912

I herewith submit my opinion to your honourable body, pursuant to your resolution of March 29, 1912, which is as follows:

"Whereas, An act constituting chapter 355 of the Laws of 1907, provides among other things that certain persons therein named shall be a corporation to be designated as the 'Long Sault Development Company'; and

"Whereas, Such act further purports to convey to said corporation valuable and exclusive privileges and rights, and directs the conveyances to said corporation of certain lands belonging to the State under the waters of the St. Lawrence river and referred to in said act; and

"Whereas, It is claimed that said corporation is proceeding under such act to acquire private lands, and to secure the consent of the governments of the United States, and of the Dominion of Canada, confirming said act and the privileges assumed to be granted thereby; and

"Whereas, It is further claimed that such act is unconstitutional in that it assumes to convey exclusive rights and privileges by special enactment, and further assumes to convey a portion of the forest preserve of the State which by the constitution is made inalienable on the part of the State; be it therefore

Resolved, That the Attorney-General of the State is hereby requested to transmit to the Senate for its further consideration his written opinion as to whether such act as aforesaid contravenes the constitution of the State in any of the matters herein referred to, or in any other particulars; and if in his judgment it does, what, if any, present action or proceedings may be brought by the State to ascertain judicially such fact; and that such written opinion be ready for submission on the reconvening of the Senate in the year 1913, or at any time prior thereto if the same shall be convened in extraordinary session and prepared to receive the same.

Substantial Provision of the Act

Chapter 355 of the Laws of 1907 became a law on May 23, 1907' by the approval of the Governor. The act is entitled:

> "AN ACT to incorporate the Long Sault Development Company, and to authorize said company to construct and maintain dams, canals, power-houses and locks at or near Long Sault island, for the purpose of improving the navigation of the St. Lawrence river and developing power from the waters thereof, and to construct and maintain a bridge, and carry on the manufacture of commodities."

Section 1 constitutes the Long Sault Development Company a body corporate, for the purposes of

> "erecting, constructing, maintaining, operating and using in connection with the Saint Lawrence river, a dam or dams, a canal or canals, a reservoir or reservoirs and a power-house or power-houses, and works appertaining thereto at or near Long Sault island in the county of Saint Lawrence, and of erecting and constructing a lock or locks, and works appertaining thereto, at or near the same place, all for the development of electrical power and energy and the permanent improvement of navigation on the Saint Lawrence river at and above and below said place; and also of constructing and maintaining a bridge upon or in connection with said works and of carrying on the manufacture of commodities with the said power."

Section 2 of the act confers upon the company, corporate powers usually possessed by corporations organized under general laws and particularly authorizes it

> "(3) To acquire, by grant, gift, purchase, devise, bequest or other lawful means, and to hold and dispose of such property as its purpose shall require, subject to such limitations as may be prescribed by law;"

Section 3 of the act provides that:

> "Said corporation shall have the right to erect, construct, maintain, operate and use all such dam or dams, canal or canals, reservoir or reservoirs, gates, sluices, trunks, pipes, bulkheads, piers, flumes, abutments, and other works appurtenant thereto, as may be proper or useful for the purpose of the development of water-power, and of electrical-power and energy therefrom, at such

point or points upon or adjacent to the south shore of the Saint Lawrence river, near Long Sault island or Barnhart island, and upon the said islands, or either of them, and between said islands, and between said islands or either of them and the shores of the said river and Sheek island (but not across the international boundary line unless consented to by the Dominion of Canada), as may be selected by said corporation, and also in and upon so much of the said river and the bed thereof as lies to the south of the international boundary line, at or near Long Sault island or Barnhart island, either independently or in connection with like works now erected, or to be erected, in so much of said river and the bed thereof as lies to the north or Canadian side of said international boundary line, and upon and adjacent to the northerly shore of said river; and to erect, construct, maintain, operate and use a power-house or power-houses, and conductors, cables, wires, insulators and other appliances in connection with the said works for the development of electrical power and energy; and also to take and use the waters of said river at and above the points of location of said works heretofore authorized, and to construct and maintain upon, over and in connection with said dam or dams and other works, a bridge or bridges across or partly across the Saint Lawrence river, with the approaches thereto, for the use of foot passengers, animals and vehicles, and to charge reasonable rates of toll for passage thereon; the said rights being granted upon the express condition that said corporation shall make just compensation to all persons injured by the exercise of the rights and privileges heretofore granted, and that said corporation shall also erect and construct a lock or locks as may be required by the United States of America, and shall provide electrical power or energy for the maintenance, operation and use of said lock or locks, free of charge, and shall in all other respects perform, fulfill and abide by all and singular the conditions and provisions of this act, and also of any act of congress of the United States relating thereto, and also upon condition that the rights hereby granted shall never be so used as to impair or obstruct the navigation of the Saint Lawrence river, but, on the contrary, that such navigation shall be preserved in as good condition as, if not better than, the same is at present, regard being always had to the amount of the natural flow of water in said river as affecting its navigability from time to time."

Section 4 of the act provides that after the United States shall have authorized the construction of dams, locks and canals authorized by section 3, and after the payment by said corporation into the treasury of the State of the fixed sum of $10,000, then "the Commissioners of

the Land Office shall upon application of said corporation grant unto it the title and interest of the people of the State in and to lands under the waters of the Saint Lawrence river." These lands "to be covered or occupied by said works and locks and power-houses."

The section then contains the proviso:

"That any of the lands of the state which may be so conveyed to said corporation shall be forfeited and title thereto shall revert to the state unless the same are actually used by said corporation and covered by its dams, canals, reservoirs, gates, sluices, trunks, pipes, bulkheads, piers, flumes, abutments or other works appertaining thereto, or are necessary to the enjoyment for said purposes of any lands so used or covered, within fifteen years from the conveyance thereof by the commissioners of the land office to said corporation under authority of this act."

Section 4 continues:

"And in consideration of the conveyance so made under the authority of this act, as well as for the rights and privileges hereby granted, the said corporation in addition to the payment, aforesaid, shall pay into the treasury of the state for the year nineteen hundred and ten the fixed sum of fifteen thousand dollars, and for the year nineteen hundred and eleven the fixed sum of twenty thousand dollars. For each year after nineteen hundred and eleven the said corporation shall pay at the following rates upon the average amount of electrical horse-power generated during such year under the authority of this act, that is to say: Upon all amounts up to twenty-five thousand electrical horse-power, at the rate of seventy-five cents per horse-power;

"Upon all amounts in excess of twenty-five thousand electrical horse-power and up to one hundred thousand electrical horse-power, at the rate of fifty cents per horse-power; upon all amounts in excess of one hundred thousand electrical horse-power, at the rate of twenty-five cents per horse-power. In case said corporation shall generate or develop water-power as mechanical power, without transmitting the same into electrical power, then for so much of said water-power as shall be so generated or developed, payment shall be made at the above mentioned rates per mechanical horse-power.

In the ascertainment of the average electrical horse-power generated, section 4 prescribes the following rule:

"In determining the average amount of electrical horse-power generated and the average amount of mechanical horse-power generated or developed in any year, for the purpose of determining

the amount to be paid to the state, no day nor hour during which the works of said company are not in substantial operation shall be included in the total time for which such average is to be determined as the average for the year."

Provision is then made for such payments on or before February 1st of each year and that the records and books of the said corporation shall be open to inspection by the State authorities, who shall also have power to prescribe the standard and character of the measuring instruments and devices and test the same.

Disputes in regard to the amount payable are referred for settlement to the Court of Claims.

Section 4 then provides:

"In case the said corporation shall fail to pay any amount due hereunder, within sixty days after the same is payable as herein provided, in addition to any other remedies which may exist by law, the rights and privileges hereby granted may be forfeited."

It is further provided:

"The payments above specified are based upon the assumption that the said corporation under the authority of this act, subject only to the lawful control of the United States government, may use for the purposes herein specified, at the places herein mentioned, *all* of the waters of the Saint Lawrence river south of the international boundary line, but in case said corporation shall at any time be compelled to make any payment to the Dominion of Canada or the Province of Ontario for the use by said corporation of any portion of said water to generate power as authorized by this act, said corporation shall be entitled to an equitable readjustment of the rate of compensation to be paid to the state for that portion of the said water for the use of which said corporation shall be compelled to make payment to said Dominion or Province."

Provision is made that such readjustment shall be made by arbitrators and for their appointment, and that the decision of such arbitrators shall be final and binding upon the parties.

Section 5 of the act gives the company the power to

"Sell or convey all or any portion of its property and assets, and the franchises and rights appurtenant thereto, upon such terms as may be consented to as aforesaid, but subject always to all the conditions and provisions of this act."

Section 6 makes the existence of the corporation perpetual.

Section 7 fixes the capital at $1,000,000, with shares of a par value of $100 each. It requires the corporation before commencing business to have $250,000 of the par value of the capital stock subscribed and paid for in cash, and requires that the organization tax provided by the General Laws of the State of New York be first paid to the State Treasurer.

Section 8 fixes the number of directors of said corporation at five.

Section 9 provides:

> "The said corporation shall begin the work of constructing its dam pursuant thereto within one year after the congress of United States shall authorize the construction of dams, locks and canals hereby authorized, and in case such construction shall not be so begun the grants, rights and privileges hereby granted may be forfeited."

OPINION

The act in question, chapter 355 *of the Laws of* 1907, *contravenes section* 18 *of article III of the State Constitution.*

Section 18 of article III of the State Constitution is as follows:

> "The Legislature shall not pass a private or local bill in any of the following cases: * * * granting to any private corporation, association or individual any exclusive privilege, immunity or franchise whatever."

This provision of the State Constitution was not inserted until 1874 and took effect January 1, 1875. I have been unable to find any decision of our courts since that time directly involving the question here presented, namely: does a grant by the Legislature to a private corporation of a right or privilege to dam a navigable stream and appropriate and utilize the whole power therefrom contravene the above provision.

The Act of 1907 is plainly a private and a local bill.

It is a private bill in that it relates only to a particular corporation, organized for private gain, to be controlled by private stockholders.

The Court of Appeals, in Economic Power & Construction Company v. The City of Buffalo, 195 N.Y. 286, held that every act incorporating a company for private gain and generally all acts relating to a single corporation are private acts. This act comes under the above definition and is, therefore, a private act.

The courts define a local act as one which in its subject relates to but a portion of the people of the State or to their property, and may not, either in its subject, operation or immediate and necessary results,

affect the people of the State or their property in general. People v. Supervisors of Chautauqua, 43 N.Y. 10; Johnston v. Spicer, 107 N.Y. 201; Astor v. Arcade Railroad Co., 113 N.Y. 93.

This act comes clearly within the above definition and is, therefore, a local act, within the meaning of section 18, article III of the Constitution.

It remains to be determined whether the rights and privileges granted are exclusive, within the meaning of the Constitution.

By section 3 of the act in question, the Long Sault Development Company is given the right "to erect, construct, maintain, operate and use such dam or dams, canal or canals, reservoir or reservoirs, gates sluices, trunks, pipes, bulkheads, piers, flumes, abutments and other works appurtenant thereto, as may be proper or useful for the purpose of the development of water-power and of electrical power and energy therefrom, at such point or points upon or adjacent to the south shore of the St. Lawrence river, near Long Sault island or Barnhart island, and upon the said islands, or either of them, and between said islands, and between said islands or either of them and the shores of the said river and Sheek island (but not across the international boundary line unless consented to by the Dominion of Canada), as may be selected by said corporation, and also in and upon so much of the said river and the bed thereof as lies to the south of the international boundary line, at or near Long Sault island or Barnhart island, either independently or in connection with like works now erected, or to be erected, in so much of said river and the bed thereof as lies to the north or Canadian side of said international boundary line, and upon and adjacent to the northerly shore of said river; and to erect, construct, maintain, operate and use a power-house or power-houses, and conductors, cables, wires, insulators and other appliances in connection with the said works for the development of electrical power and energy; and also to take and use the waters of said river at and above the points of location of said works heretofore authorized."

Stronger or more comprehensive or more definite language could not be used by the Legislature in conferring upon the company the right, power and privilege of controlling, for the purpose of electrical power and energy, the waters of the St. Lawrence river at this point.

It might be argued, were the company limited to the use and development of the water-power in and about Long Sault island, that the privilege granted is not exclusive, but when it is considered that the company is given the right to develop water-power, at and above said place, the conclusion is inevitable that an exclusive privilege is granted, the limitations of which, in respect to location, are not defined and may be asserted by the company to prevent all others from enjoying

a similar privilege, not only at, but above Long Sault island. How far above is not provided.

Authority is likewise conferred upon the corporation to erect all structures that it may deem proper or useful for any of the purposes described, at any points on the south shore or the north shore of the St. Lawrence river, upon any of the three islands named, or between the islands or in the bed of the river, either independently or in connection with like works now erected, or to be erected, in so much of said river and the bed thereof as lies to the north or Canadian side of said international boundary line, and upon and adjacent to the northerly shore of said river.

The act, therefore, not only grants to the corporation the exclusive right to develop and utilize all the water-power in and around Long Sault island, but also contemplates a more comprehensive, general and exclusive control of the waters of the St. Lawrence river at and near that vicinity, by constructing, independently or in connection with works at present existing or to be hereafter constructed on the Canadian side of the river. If the Long Sault Development Company is able, either through connections with a company or companies on the Canadian side, or by independent action, to obtain a similar grant of power on the Canadian side, there can be little question about the exclusive nature of the privileges and power it would thereby be permitted to exercise.

In addition to all this, it is important to note that the power granted is perpetual.

In view of the language above quoted and in the light of all of the facts at hand, the conclusion seems irresistible that the Legislature of 1907 intended and endeavored to grant to the Long Sault Development Company the exclusive right, either independently or in connection with other corporation or corporations, to control all of the water-power that could be generated at that place in the St. Lawrence river and within a vague and undefined area "above that point," not only for the present generation, but in perpetuity.

Under this grant, if valid, succeeding Legislatures are prevented from granting privileges to any individual or corporation to utilize any of the water-power at the Long Sault rapids. It may also be claimed by the Long Sault Development Company that, because of its right to utilize the water above Long Sault island, no grant can be made by the Legislature, at least within a reasonable distance above the point in question, without impairing the charter of the Long Sault Development Company.

The company might also maintain that any structure hereafter authorized, above or below the location in question, which would in any wise affect the hydraulic head or lessen in any degree the efficiency

of any of the structures of the Long Sault Development Company, would financially damage, and thereby impair the exclusive rights, powers and privileges which the Long Sault Development Company received from the Legislature.

I believe that section 18 of article III of the Constitution was adopted for the very purpose of preventing such grants as this. At the time when this amendment was adopted in 1874, nearly all of the available power sites within the State had been granted by the Legislature by special acts, with scarcely any revenue to the State.

The preservation to future generations of the water-power not theretofore granted, and which was practically located in the two border streams, the Niagara and the St. Lawrence, was a vital, essential and important duty. By section 18 of article III the people undertook to put an end to the granting of these exclusive privileges, and it is not unreasonable that they had in mind the undeveloped water-power of these two great streams. In any event, it was plainly declared in that provision that no exclusive privilege, immunity or franchise should be thereafter granted by the Legislature.

The charter in question plainly violates this provision, when we consider the causes that led to the adoption of, and the purpose sought to be obtained by this amendment.

There are many decisions of the courts interpreting this language of the Constitution, but none that I have been able to find which determine this question contrary to the conclusion which I have reached.

The terms of the Constitution are so plain, simple and comprehensive as to leave little room for construction. Nothing can be added to or taken from the language employed to make more plain the object aimed at. That object, as provided by the language of the provision, and as uniformly interpreted by the courts, is twofold: 1. To prevent monopoly; 2 To leave open competition.

Keeping these objects in view, there is to my mind little difficulty in applying the constitutional mandate to any given state of facts.

It is urged, upon the authority of Matter of Application of Union Ferry Company, 98 N.Y. 139, that a privilege, immunity or franchise is not exclusive within this provision of the Constitution, which does not, by its terms, prohibit the enjoyment of a similar privilege, immunity or franchise by someone other than the grantee. This is founded upon the language of the court in that case, to be found at page 153, which is as follows:

> "The exclusiveness prohibited is one which is created by the terms of the grant, not that which results from the nature of the property or right granted."

In that case the court was considering an act of the Legislature passed in 1882, entitled "An act to provide additional ferry slips and facilities in New York city for the ferries running between Whitehall street in the city of New York and Brooklyn." At page 148 the court said:

> "The whole frame and context of the act are consistent with the view that its object was not to grant any privilege or franchise to the Union Ferry Company as a corporation, but, as stated in the title of the act, to add to the ferry slips and facilities of the particular ferry which the company named was, at the time, operating."

The court further held, in sustaining the constitutionality of that act, that the additional facilities granted by the act would increase the capacity, not only of the grantee, but of all future lessees of the ferry, to meet the wants of the public, and that those increased facilities would be enjoyed by the grantee only under its lease from the city, and would terminate with the lease and pass to succeeding lessees, and that the property could not be used for any purpose except the exercise of the ferry franchise granted by the city, and in whose hands that franchise might be from time to time.

The court placed particular emphasis upon the fact that the privilege was not exclusive in respect to the character of the rights granted, nor indefinite in respect to the time of its enjoyment, and pointed out as exempting the statute from the constitutional inhibition, that the right granted, even while enjoyed by the Union Ferry Company could also be enjoyed by other companies and at the termination of the lease of the Union Ferry Company, the particular right granted to that company would pass to its lessee.

The facts of this case, it will be seen, immediately take it outside of the facts in the Long Sault case. The reasoning of the court in the Union Ferry Company case is not antagonistic to the contention that an exclusive privilege was granted to the Long Sault Development Company.

At page 151 the court cites cases of exclusive privileges condemned by this provision of the Constitution, among them the Cayuga Bridge Company v. Magee, 2 Page 116, in which case the charter of the Cayuga Bridge Company provided that it should not be lawful to erect any bridge or establish any ferry within three miles of the place where the bridge of the company should be erected, or to cross the river within three miles of the bridge without paying toll.

If we apply that doctrine to this case it condemns the charter. While the act does not expressly provide that no other company shall enjoy the privileges of the Long Sault Development Company within

the area covered by the grant, yet the terms of the grant itself make it impossible that any other grant could be made by the State, or that any other company or any other individual, even the present riparian owners, could utilize the water for power purposes in that portion of the river.

I can see no distinction in principle between the provisions of an act of the Legislature which expressly provide that there shall be no competition within a given area, and the provisions of an act which make it impossible that there should be. To hold that a different principle applies is to give an absurd construction to this most vital constitutional principle. Certain it is that the Union Ferry Company case is not authority for any such contention.

That case further cites, as an instance of an exclusive privilege, the decision of the Court in Mohawk Bridge Company v. U. & S. R. R. Co., 6 Page 554. In that case the Mohawk Bridge Company received a charter to cross the Mohawk. The charter prohibited ferries crossing the river one mile above and one mile below.

Suppose in that case the Legislature, instead of providing that no other ferries should cross one mile above or one mile below, had made a grant to the Mohawk Bridge Company of the waters of the Mohawk and the bed of the stream, one mile above and one mile below. It is plain that such a grant would as effectively prevent other ferries from crossing within that area as if the statute expressly so provided.

I am well aware that, in the Union Ferry Company case, the Court of Appeals announced the principle that the right granted is not exclusive simply because it is impossible that any other person or corporation should enjoy that right, holding that, where it is important to the public interest that a privilege should be exercised by someone, the State must necessarily have authority to select the grantee, and that in such a case the exclusiveness is not produced by the grant, but results from the nature of the thing granted.

That doctrine cannot be so extended as to protect a grant which, although in terms not exclusive, yet in addition to the privilege granted, grants other rights and privileges and properties which, upon the face of the act itself, make the privilege exclusive.

The Court instances, as supporting this construction, grants of charters to toll bridge companies, grants of land to railroad companies for depots, car-yards, etc. These rights, of course, are to a certain extent exclusive, but the grant of a right to build a toll bridge is based upon an obligation on the part of the company to serve the public by improving the highway over which toll is taken. The right granted is in return for a public service rendered, while the rights granted to railroad companies to acquire depots, car-yards, etc., are necessary for the enjoyment of the franchise given to the companies, and that brings the

case within an entirely different principle. In both these cases the use is a public one, and essential for the purpose of enjoying the charter granted by the State, and it is within the power of the Legislature to determine the necessity of the grant, and when it so determines, keeping within the line so clearly marked out by the court in the Union Ferry Company case, the grant is not violative of the Constitution.

The grant made to the Long Sault Development Company is not within the protection of these principles. It is exclusive within a certain undefined area. The powers granted are not in the interest of the public, and the important ones, such as the grant of the title to the bed of the river, are not essential to the enjoyment of the privilege of developing a water-power and electrical energy. It prevents competition; it creates a monopoly in as clear and emphatic terms as could possibly be used by the Legislature.

I think it is clear, therefore, that it violates section 18 of article III of the Constitution of the State of New York.

The act in question violates section 7 of article VII of the State Constitution, which provides that the lands of the State now owned or hereafter acquired, constituting the Forest Preserve, as now fixed by law, shall be forever kept as wild forest lands and shall not be leased, sold or exchanged or taken by any corporation, public or private.

The bed of the St. Lawrence river is within the boundaries of the county of St. Lawrence. Chapter 332 of the Laws of 1893 (article VI, chapter 43, of the General Laws) provides:

> "Section 100. Forest Preserve. The forest preserve shall include the lands now owned or hereafter acquired by the State within the counties of * * * St. Lawrence, * * * except
>
> "1. Lands within the limits of any village or city and
>
> "2. Lands, not wild lands, acquired by the State on foreclosure of mortagages made to the commissioners for loaning certain moneys of the United States usually called the United States deposit fund."

This statute was in force when the present constitution was adopted, which went into effect January 1, 1895, and contained the following clause:

> "Article VII, section 7. The lands of the State, now owned or hereafter acquired, constituting the forest preserve as now fixed by law, shall be forever kept as wild forest lands. They shall not be leased, sold or exchanged, or be taken by any corporation, public or private, nor shall the timber thereon be sold, removed or destroyed."

This provision of the Constitution, read in connection with the provisions of the statute then in force, leads inevitably to the conclusion that the lands in question are within the forest preserve and may not be alienated. The Court of Appeals in People v. Fisher, 190 N.Y. 480, in considering what are forest preserve lands uses the following language:

> "The language of the statute thus specifying the lands which are included within the forest preserve is clear and definite and does not in itself require construction. Its plain and positive language is made even more certain by the fact that some exceptions are stated therein."

The bed of the St. Lawrence river covered by the grant in question, being within the county of St. Lawrence and the State of New York is land owned by the State, constituting the Forest Preserve as defined by chapter 332 of the Laws of 1893.

There is no dispute that the land in question is so located, otherwise the Legislature of the State of New York could not grant title to these lands, as it undertook to do in the grant to the Long Sault Development Company.

My attention has been called to the very able brief of Henry W. Taft, Esq., in respect to the constitutionality of the charter of the Long Sault Development Company in which he argues at length, and with much force, that the lands in question were not intended to be included within the definition of the Forest Preserve, and therefore, are not within the inhibition of article VII of section 7 of the Constitution.

I am unable to follow his reasoning and to give the language of the statute and the language of the Constitution any other than its plain and natural meaning. Nothing is left open for construction. I do not see how the statute defining the Forest Preserve could use more apt language in including the waters under the St. Lawrence river than it has used; nor how the constitutional convention could have more clearly expressed the policy of the State against alienating these lands.

The act of 1907 *is a private bill which embraces more than one subject and is defective and erroneous in its title.*

Article III, section 16, of the State Constitution provides that:

> "No private or local bill, which may be passed by the Legislature, shall embrace more than one subject, and that shall be expressed in the title."

The subjects embraced in the bill in question are as follows:

1. The creation of the corporation.

2. The construction, maintenance and operation of construction at or near Long Sault island.

3. The development of power from the waters of the St. Lawrence.

4. Constructing and maintaining a bridge.

5. The manufacturing of commodities.

6. The levying and taking of tolls.

7. The erection of transmission appliances.

8. The granting of the title to the bed of the St. Lawrence river to the corporation.

9. The creation of an exclusive right in perpetuity, to the use of all the water-power in the Long Sault rapids.

10. The provision for alleged reasonable and proper remuneration to the State for such exclusive privileges.

Members of the Legislature from an examination of the title of this bill would not expect to find such extraordinary and exclusive grants as contained therein. The title of the bill does not indicate that the right to take toll is given to the company; nor that the title to the bed of the St. Lawrence river is to be conveyed to the corporation. Development of water-power in the river is readily accomplished without an appropriation or occupancy of the bed of the stream. The title of the bill does not indicate that the charter granted is perpetual. The same criticism applies in respect to the other provisions of the bill pointed out above.

The Court of Appeals, in Coxe v. The State, 144 N.Y. 396, declared unconstitutional, as violative of the provisions of the Constitution we are here considering, an act entitled: "An act to authorize the drainage of marsh lands" which granted privileges of an important character; constituted a corporation, to which it gave power to reclaim and drain, from time to time, wet or overflowed lands and tide-water marshes on or adjacent to Staten island and Long island. Power was also given to enter upon all lands and waters for the purpose of making surveys and to use and own the right and title of the State in and to all the lands under water that may lie within or between said dykes and the present shore line, upon the payment to the treasurer of the State of such sum of money as should be determined by a commission to be appointed by the Governor, to be a fair value of such lands under water and belonging to the State. The Court of Appeals said at page 408, in speaking of this:

> "It created a private corporation and its operations affected four counties in the State. The subjects embraced in it were the creation of the corporation; the authority to drain and reclaim tide-water marsh lands; to levy and collect assessments; to exercise the power of eminent domain and the grant of lands

belonging to the state. We have seen that the purpose of the act, as expressed in the title, was the authority to 'drain marsh lands.' Without inquiring whether any of these subjects are germane to, or so connected with the one expressed in the title as to escape the objection, it is quite clear that no citizen or member of the Legislature would expect to find such an extraordinary grant from the State of lands under water in the body of a bill with such a title, and that is a fair test of the question."

The act of the Legislature condemned by the court in the above case was not more clearly violative of the provision of the Constitution under consideration than the act incorporating the Long Sault Development Company. Nothing in the title, as I have before stated, indicates that the company is to become the owner of land under water; is to be permitted, in connection with other companies or acting independently, to bridge the St. Lawrence at that point; to have exclusive control in perpetuity of the waters in the vicinity of Long Sault island and above and below it; to charge toll, and to do the other numerous acts which by the terms of the statute, it is permitted to do. For instance, the heading provides that one of the purposes of the act is "to improve navigation in the St. Lawrence," while there is nothing in the act to require the company to improve navigation, or to do anything more than is necessary to accomplish the purposes of its corporate existence, provided the navigation of the St. Lawrence is not injured. Many affirmative acts are to be performed by the company, every one in aid of its corporate purposes, not one for the improvement of navigation.

I believe, therefore, that this bill violates section 16 of article III of the Constitution of the State.

The act is invalid and inoperative so far as it provides for the alienation by the State of title to the lands in the bed of the St. Lawrence.

I think it is within the spirit of the resolution that I should also call the attention of your honourable body to the fact that the act in question is in excess of the power of the Legislature—in undertaking to divest the people of the State of the title to the lands under the St. Lawrence.

The act in question provides that after Congress shall authorize the construction of the dams, locks and canals authorized by the act, and after the payment by said corporation into the treasury of the State of the fixed sum of $10,000, the Commissioners of the Land Office shall, upon application of said corporation, grant unto it the title and interest of the people of the State in and to the lands under the waters of the St. Lawrence river, to be covered or occupied by said works and locks and power-houses, etc.

Provision is herein made for the complete surrendering of the title of the people of the State to the company, upon its complying with the terms of the act. This, neither the Legislature nor the Board of Land Commissioners has power to do.

The title of the State of New York to lands under navigable waters is a sovereign right rather than a proprietary title.

The State holds such lands in trust for the benefit of the public and that trust the State is powerless to divest itself of. This doctrine has been clearly announced whenever the question has been before the courts, both in State and in Federal tribunals, and is not open to doubt. In the case of Coxe v. The State, 144 N.Y. 396, a case very similar to this, the court announced this principle in the following language:

> "The question is governed in this State by the rules of common law, modified in some respects by statute and adapted by the courts to such changes of conditions as existed here. That the dominion and ownership of such lands (under navigable streams) is in the sovereign for the benefit of the public has long been settled. Such dominion and ownership of property generally implies the power of absolute disposition, but with respect to the land under navigable or tide waters an important limitation has been engrafted upon this power from the nature of the title. The title of the State to the sea-coast and the shores of tidal rivers is different from the fee simple which an individual holds to an estate in lands. It is not a proprietary, but a sovereign right, and it has been frequently said that a trust is engrafted upon this title for the benefit of the public of which the State is powerless to divest itself."

The same doctrine is announced in People v. N.Y. & S.I. Ferry Co., 68 N.Y. 71, and numerous other cases.

The United States Supreme Court states the same doctrine in Illinois Central R.R. Co. v. Illinois, 146 U.S. 387. The court was there considering the validity of an act of the Illinois State Legislature, repealing a former act of that Legislature, which former act undertook to grant to the Illinois Central Railroad Company certain lands under the waters of lake Michigan. Upon that point the court said:

> "The State holds the title to the lands under the navigable waters in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them and have liberty of fishing therein, freed from the obstruction or interference of private parties. * * * The control of the State for the purposes of the trust can never be lost except as to such parcels as are used in promoting the interest of the public thereon or can be disposed of without any substantial impairment of the public interest in the lands and waters remaining. * * *

> "The State can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them, so as to leave them entirely under the use and control of private parties except in the instance of parcels mentioned for the improvement of the navigation and use of the waters, or when parcels can be disposed of without impairment of the public interest in what remains, than it can abdicate its police powers in the administration of government and the preservation of the peace."

There are numerous other cases in the United States court holding the same principle.

The title to this land is not necessary for the enjoyment by the company of all of the power incident to the development of water- and electrical power at that point. It is not a grant for any public use or in which the public at large is interested, or by which the public is benefitted. It clearly, therefore, contravenes the very nature of the State's sovereign control in this respect.

It may be argued that this is not important at present, in that it does not arise until Congress has acted; and also, that the powers granted to the company, being capable of full enjoyment without the grant of the title to the bed of the stream, that therefore, to that extent the act may be sustained. As the court said in the Coxe case:

> "The various provisions of the act are so mingled together and dependent upon each other, that it is not clear that any of them can stand independently."

I believe, therefore, that this act should be condemned also, because of the provision which provides for the grant of title in the company of the bed of the St. Lawrence river at the point in question.

I believe, also, that this grant which is in excess of the power of the Legislature does not constitute an obligation on the part of the State toward the company, which is beyond the power of revocation by a subsequent Legislature.

THE REMEDY

The resolution further requests an opinion whether or not any present action or proceedings may be brought by the State to ascertain judicially whether the act in question contravenes the Constitution.

The grant made is ineffective until Congress shall authorize the construction of the dams, locks and canals authorized by the act. This is conceded by the act itself and is necessarily so, for the reason that

the St. Lawrence is a national boundary, is a navigable river and is, aside from regulation by treaty between this government and Canada, subject to control for purposes of navigation and military defense by the United States government and Canada to the extent of their respective ownerships. In other words, the Federal control of the St. Lawrence river to the national boundary line is paramount to the control by the State for the purposes of navigation and military defense only. I believe it to be the law that the State cannot make a grant of a navigable river except subject to this paramount right of the Federal government, which right can only be enjoyed for the purpose of navigation and military defense.

Until, therefore, the Federal government, in conjunction with the Canadian government, or independently, shall recognize this grant as not interfering with the Federal use and control of the waters of the river at this point, the grant does not become effective. No legal proceedings, therefore, are necessary and it is not clear that any can be maintained in the courts to determine the constitutionality of that grant, especially as no power of privilege can be exercised by the grantee concededly until the Federal government, through Congress, has authorized the construction of dams, locks and canals as authorized by the act. I believe, however, that the Legislature has power in this case either to repeal the act or to direct the Attorney-General to bring an action to procure a judgment vacating and annulling the act of incorporation. The latter power of the Legislature can be exercised only if the Legislature reaches the conclusion that the act was procured by fraudulent suggestion or the concealment of a material fact made by or with the knowledge and consent of the persons, or any of them, incorporated. (Section 130, General Corporation Law).

The power of the Legislature to repeal an act passed by a former Legislature, when deemed in conflict with the Constitution, I think is unquestioned. It has been exercised in the past by the Legislature with the approval of the court. Chapter 257 of the Laws of 1875 repealed a grant of land under water made by a previous Legislature. This act was before the court in Coxe v. The State, 144 N.Y. 391. At page 403 the court discusses the terms of the repealing act and assumes that it was within the legislative power. In that case no question was made even by the corporation affected of the power of the Legislature to repeal the grant. In Illinois Central Railroad Company against Illinois, 146 U.S. Reports, 387, the United States Supreme Court held valid and effective an act of the Legislature of the State of Illinois repealing an act of a former Legislature undertaking to grant to the Illinois Central Railroad Company the right and title of the State of Illinois in and to the submerged lands constituting the bed of lake Michigan and lying east of the tracks and breakwater of the Illinois

Central Railroad for the distance of one mile. The court in that case held the principle that is contended for in this opinion, that this grant exceeded the power of the Legislature in that State could not alienate to a corporation its ownership and control of lands under navigable waters but held them in trust for the people, and that to that extent the act of the Legislature was invalid and the repealing act was valid and effective.

CONCLUSION

It is my opinion, therefore, that the powers and privileges granted the Long Sault Development Company by chapter 355 of the Laws of 1907 was an invalid and unauthorized grant for the reasons:

1. That the act in question is unconstitutional in that it contravenes section 18 of article III of the State Constitution, which provides that the Legislature shall not pass a private or local bill granting to any private corporation, association or individual any exclusive privilege, immunity or franchise whatever. This bill is private and local and grants an exclusive privilege, as contemplated by section 18 of article III of the Constitution.

2. It violates section 7 of article VII of the State Constitution, which provides that the lands of the State now owned or hereafter acquired, constituting the Forest Preserve, as now fixed by law, shall be forever kept as wild forest lands, and shall not be leased, sold or exchanged, or taken by any corporation, public or private.

The bed of the St. Lawrence river, which, by the act in question, is directed to be conveyed to the Long Sault Development Company, is owned by the State and was so owned at the time the provision of the Constitution was adopted, and was included within the Forest Preserve, as defined by section 100 of chapter 332 of the Laws of 1893, describing the lands included within the State Forest Preserve.

3. The act in question is a private bill and embraces more than one subject, and is, therefore, in violation of article III, section 16, of the State Constitution, which provides that no private or local bill which may be passed by the Legislature shall embrace more than one subject, and that shall be expressed in its title.

4. The act is invalid as being in excess of the powers of the Legislature, in that it provides for the alienation by the State to the Long Sault Development Company of title to the lands in the bed of the St. Lawrence river. The title of the State in these lands is a sovereign right, rather than a proprietary title. It is inconsistent with that right, which must be exercised for the benefit of the whole people, that the title to the bed of a navigable stream should be granted in fee to a private corporation.

I do not deem it within the scope of the resolution that I should call the attention of your honourable body to the great disparity between the value of the rights and privileges undertaken to be granted to the Long Sault Development Company, and the revenue therefrom reserved to the State. While that is not the least striking provision of this most remarkable grant, yet it is a question of policy and of economy which it is competent for the Legislature to determine, and is not I deem it, a question upon which the Legislature desires or needs my opinion.

All of which is respectfully submitted,

THOMAS CARMODY

Attorney-General

To the Honourable the Senate of the State of New York

Dated: December 30, 1912

APPENDIX III (a)

ACT TO REPEAL

THE ACT OF INCORPORATION OF THE LONG SAULT DEVELOPMENT COMPANY—SIGNED BY THE GOVERNOR OF THE STATE OF NEW YORK, MAY 8, 1913

LAWS OF NEW YORK—By Authority

Chap. 452

AN Act to repeal chapter three hundred and fifty-five of the laws of nineteen hundred and seven, entitled "An Act to incorporate the Long Sault Development Company, and to authorize said company to construct and maintain dams, canals, power-houses and locks at or near Long Sault island, for the purpose of improving the navigation of the St. Lawrence river and developing power from the waters thereof, and to construct and maintain a bridge, and carry on the manufacture of commodities," providing for the repayment to such company of certain moneys paid by it under such act and making an appropriation therefor.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Chapter three hundred and fifty-five of the laws of nineteen hundred and seven, entitled "An Act to incorporate the Long Sault Development Company, and to authorize said company to construct and maintain dams, canals, power-houses and locks at or near Long Sault island, for the purpose of improving the navigation of the St. Lawrence river and developing power from the waters thereof, and to construct and maintain a bridge, and carry on the manufacture of commodities," is hereby repealed, upon the following grounds:

First. That chapter three hundred and fifty-five of the laws of nineteen hundred and seven is unconstitutional in that it contravenes section eighteen of article three of the State Constitution, which provides that the Legislature shall not pass a private or local bill granting to any private corporation, association or individual any exclusive privilege, immunity or franchise whatever.

Second. That the said act is unconstitutional in that it contravenes section seven of article seven of the State Constitution, which provides that the lands of the State now owned or hereafter acquired,

constituting the Forest Preserve, as now fixed by law, shall be forever kept as wild forest lands, and shall not be leased, sold or exchanged, or taken by any corporation, public or private.

Third. That the said act violates section sixteen of article three of the State Constitution, which provides that no private or local bill, which may be passed by the Legislature, shall embrace more than one subject, and that shall be expressed in its title.

Fourth. That the said act is invalid as being in excess of the powers of the Legislature, in that it attempted to provide for the alienation by the State to the Long Sault Development Company of title to the land in the bed of the St. Lawrence river. The title of the State in those lands is a sovereign right rather than a proprietary title. It is inconsistent with that right, which must be exercised for the benefit of the whole people, that the title to the bed of a navigable stream should be granted in fee to a private corporation.

2. The State comptroller is hereby authorized and directed to cause the repayment and return to the Long Sault Development Company of any and all sums paid by such company into the State treasury, under the provisions of section four of chapter three hundred and fifty-five of the laws of nineteen hundred and seven, with interest on said respective sums from the times of their several payments, upon securing proper vouchers therefor; such moneys to be paid out by the State treasurer upon the warrant of the comptroller from the moneys hereinafter appropriated therefor. Such company is continued in existence for the purposes only of receiving and giving proper vouchers for said moneys, making proper distribution or application thereof among its members or other persons entitled thereto, and the winding up of its affairs.

3. The sum of thirty-six thousand three hundred and twenty dollars ($36,320), or so much thereof as may be necessary, is hereby appropriated out of moneys in the State treasury not otherwise appropriated for the purpose of making the payments provided for in this act.

4. The enumeration in this act of the grounds for such repeal shall not be deemed to qualify or impair the full force and effect of the repeal.

5. This act shall take effect immediately.

APPENDIX III (b)

ACT TO PROVIDE FOR CLAIMS

PRESENTED BY THE LONG SAULT DEVELOPMENT COMPANY, AGAINST THE STATE OF NEW YORK—SIGNED BY THE GOVERNOR OF THE STATE, MAY 8, 1913

LAWS OF NEW YORK—By Authority

Chap. 453

AN Act to confer jurisdiction upon the board of claims to hear, audit and determine the alleged claims, if any, which may be presented by the Long Sault Development Company against the State of New York by reason of the repeal by the Legislature of chapter three hundred and fifty-five of the laws of nineteen hundred and seven.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Jurisdiction is hereby conferred upon the board of claims to hear, audit and determine the alleged claims, if any, which may be presented by the Long Sault Development Company against the State of New York by reason of the repeal by the Legislature of chapter three hundred and fifty-five of the laws of nineteen hundred and seven, and the State hereby consents in all such claims to have its liability determined, provided that such alleged claims, if any, shall be filed with the board of claims within six months after this act takes effect. No award shall be made on any such claims against the State except upon such legal evidence as would establish a liability against an individual or corporation in a court of law or equity.

2. Nothing herein contained shall be regarded as conceding the validity of any of such alleged claims upon the part of the State growing out of the enactment by the Legislature of chapter three hundred and fifty-five of the laws of nineteen hundred and seven, and by the repeal of said statute, nor as waiving, on behalf of the State, any defense thereto.

3. This act shall take effect immediately.

APPENDIX IV

A BILL,*

H. R. 14531, Introduced in the United States House of Representatives, 61st Congress, Second Session, December 14th 1909 by G. R. Malby, being a Bill to provide for the Construction of Dams, Locks, Canals, and other Appurtenant Structures in the St. Lawrence River at, and near Long Sault Island, Saint Lawrence County, New York

BE it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Long Sault Development Company, a corporation organized under the laws of the state of New York, its successors and assigns, be, and they hereby are, authorized to construct, maintain, and operate for water-power and other purposes a dam or dams across the St. Lawrence river between points on the United States and Canadian shores of said river near Long Sault island or Barnhart island or Sheek island, and the said islands, or any of them, and between said islands, in and across so much of the said river as lies south of the international boundary line between the United States of America and the Dominion of Canada, either independently or in connection with like works now erected or to be erected in and across so much of said river as lies to the north, or Canadian, side of said international boundary line, and in connection with such dam or dams, a bridge or bridges and approaches thereto, and a lock or locks, a canal or canals, and other structures appurtenant thereto: *Provided*, That such dam or dams, lock or locks, canal or canals, and other structures appurtenant thereto shall be constructed, maintained, and operated in all respects subject to and in accordance with the provisions of the Act entitled "An Act to regulate the construction of dams across navigable waters," approved June twenty-first, nineteen hundred and six: *And providid further*, That such bridge or bridges and approaches thereto shall be constructed, maintained, and operated in all respects subject to and in accordance with the provisions of the Act entitled "An Act to regulate the construction of bridges over navigable waters," approved March twenty-third, nineteen hundred and six, except that the actual construction of the works hereby authorized shall be commenced within one year and completed

*The Bill was objected to by the Rivers and Harbours Committee. It was revised and a new Bill was reported.

within fifteen years from the date of the passage of this Act, or from the date of the consent of the proper authorities of the United States of America and the Dominion of Canada to the construction of said works, or of the approval of the plans and specifications and location and accessory works thereof; and this Act shall not be construed as authorizing said company, its successors or assigns, to construct the said dams, canals, locks, and other works until such consent and approval shall be obtained.

APPENDIX V

MEMORANDUM

By C. E. Littlefield, Presented before the Committee on Rivers and Harbours of the United States House of Representatives in Opposition to Bill H. R. 14531, Pending Before Rivers and Harbours Committee

MEMORANDUM in behalf of J. Wesley Allison, W. S. Connolly and the Shipping Federation of Canada.

In addition to the foregoing the Richelieu & Ontario Navigation Company and the Montreal Harbour Commission were represented in person opposing the Bill. Protest was filed from the citizens of Waddington, N. Y., and memorials that had been filed before the International Waterways Commission by the Board of Trade of the City of Toronto, the Dominion Marine Association, the Montreal Board of Trade, and La Chambre de Commerce du District de Montreal, the Commission of Conservation, Canada, the Ontario Government by its attorney I. Hillard, K.C., were filed, and a letter from George C. Bolt, enclosing a remonstrance from the New York Board of Trade.

I

The real question upon which Congress has to pass

The Long Sault Development Company chartered by the state of New York, May 23, 1907, is given by its charter the exclusive right for all time to the use of the waters of the St. Lawrence river for the development of electrical power "at or near Long Sault island." The amount expected to be developed is a minimum of 500,000 horse-power. The total developed and potential electrical horse-power for the United States in 1908 was 1,827,000 horse-power, and the total developed at Niagara was 274,040 horse-power.

The project contemplates the greatest development of water-power ever before attempted under one charter. The capital stock of the Long Sault Development Company is one million dollars. It is all owned by the Aluminum Company of America, which has a paid in capital of twenty millions and has the absolute monopoly of aluminum in the United States. Inasmuch as the Aluminum Company is the sole party in interest we shall for the purpose of convenience refer to the Aluminum Company as the party behind the project.

In the brief filed by the Aluminum Company it is contended that if the project is approved it will become vested with the exclusive right to the use of the water subject to regulation by the United States. This we concede. The great proposition is then, shall the exclusive right for all time to the use of all of the water-power of the St. Lawrence river "at or near Long Sault island" with the potential development of at least 500,000 electrical horse-power be transferred, under the conditions and circumstances hereafter to be indicated, to the Aluminum Company thus having an absolute monopoly of the manufacture of aluminum in the United States?

Upon the propriety of this action on general principles, attention is called to the fact that the question of electrical power and its concentration in private hands has been made the subject of an extended investigation by the Bureau of Corporations, which in its report of January 14, 1909, stated that the General Electric interests controlled, developed and potential, substantially 252,000 horse-power; the Westinghouse interests 180,000 horse-power; other large power companies 875,000; the remaining 520,000 of the total of 1,827,000 by smaller companies.

The Bureau said:

> "It is obvious that the effect upon the public of such present and future conditions is a matter for serious public consideration."

If this be true, the pending project is entitled to careful consideration.

II

The Saint Lawrence river is an international boundary and should under no circumstances be embarrassed in its navigation features by large investments of private capital.

The Ashburton Treaty, in Article VII, provides that the:

> "Channels in the river St. Lawrence on both sides of the Long Sault Islands and of Barnhart Island * * * shall be equally free and open to the ships, vessels, and boats of both parties."

A project like this which includes a lock only on the American side and a complete dam of both channels, the practical use of which is questioned by engineers and experienced navigators, is clearly inhibited by the provision of the Treaty.

Every difficulty involved in the erection of permanent structures by private capital in a navigable river as bearing upon its improvement, at some future period, in a manner and under circumstances impossible to anticipate at the time of giving the original authority applies with vastly greater force to an international navigable river than to one solely within the limits of the country conferring the authority.

It is too obvious for argument that neither country can in the slightest degree, at least directly, regulate or control, either on the line of navigation or the development of water-power, the works that are situated in the other country. The interests of either country may develop to be entirely adverse to the other. The circumstances that would result in such a condition it is impossible to foretell—the probability of their occurrence is by no means remote. It is extremely unwise for either country to embarrass itself by authorizing the investment of vast sums of private capital under circumstances so entirely beyond its control.

This project contemplates the development of all the water-power in the river as a whole, which involves the power upon both sides, both in Canada and the United States, and by reason of the complications involved as above indicated, the control of the river should never be allowed to pass into the hands of any private corporation and neither government should allow itself to be embarrassed by private investments.

III

Navigation is paramount and no development ought to be allowed which is not on a comprehensive plan devoted primarily to the improvement of the whole river in the interests of navigation, as to which the development of power should be purely incidental.

This project from the standpoint of legislation is *exclusively for the development of power*, and there is no effort upon the part of the New York Legislature to improve navigation in the slightest degree.

Messrs. Freeman and Noble, engineers representing the Aluminum Company, men of high character, great ability and distinguished reputation, both conceded that power was the primary purpose and that navigation was incidental thereto. Congress has had an experience which should lead it to exercise the greatest of caution in allowing private capital to secure a foothold in a navigable waterway. The Chandler-Dunbar Water Power Company some years since developed a water-power in the Sault Ste. Marie river. Although the original authorization was no doubt considered wise and judicious and as not involving any future embarrassment to the Government, it has now been definitely decided that the public interests require the entire elimination of the company from that great navigable waterway, and the Government is now engaged in the condemnation of the property of the company and we understand large sums are claimed by the company to adequately compensate them for the loss thereby sustained, very much larger sums we apprehend than are represented by the actual investment.

In a great navigable waterway like the St. Lawrence river, the Government ought not to be embarrassed by private investments, although it retains the power to regulate and control the locks and dams. After the construction upon plans approved by the Department at that time believed to be adequate, it is easy to see how subsequent developments may show that the power of changing and modifying should be exercised, and whenever such power is exercised or invoked, the inconvenience or expense to which the private enterprise is to be subjected is always an extremely embarrassing factor involved in the question of change. While it may have the right to compel a great corporation to make what are clearly necessary changes, the fact that the corporation will be subjected to large expense is a factor which tends to embarrass the efficiency of the right reserved to the Government. Such rights should not be granted in a case of the magnitude of the one before the Committee.

While the St. Lawrence river is not now utilized as is the Sault Ste-Marie, it should not be forgotten that its use is very rapidly increasing. In 1895 the total quantity of through freights passing through the Welland and St. Lawrence canals both east and west from and to Montreal was 277,244 tons. The same freight in 1909 had increased to 1,116,515 tons, quadrupling in fifteen years. The St. Lawrence is the only natural waterway by which Canada can get the competition of water-borne freight from its vast agricultural and mining resources in the West to the Atlantic. The vast project of a deep waterway from the Lakes to the gulf of Mexico, involving an expenditure as has been estimated by some of five hundred millions of money, now has many earnest and able advocates. The state of New York is expending some one hundred millions of dollars for the development of its canal system. There are numerous large rivers giving an outlet from the interior of the United States to the Atlantic coast. The vital commercial necessity of water-borne competition is thus recognized on the very largest scale. The St. Lawrence should be preserved for great National and International exigencies of that character.

If it is said that the Dam Act as amended June 23, 1910, provides for the elimination from a navigable waterway of the investment of private capital, we submit that the remedy thus provided prohibits this project. The Act provides that

> "Congress may revoke any rights conferred in pursuance of this Act whenever it is necessary for public use, and in the event of any such revocation by Congress, the United States shall pay the owners of *any dam and appurtenant works* built under authority of this Act as *full compensation, the reasonable value thereof*, exclusive of the value of the authority or franchise granted, such reasonable value to be determined by mutual agreement between the Secretary of War and the said owners, and in case they cannot agree then by

proceedings instituted in the United States Circuit Court for the condemnation of such properties."

First note the broad and comprehensive character of the property that will have to be paid for on the basis of "*full compensation*" by the United States—"*any dam and appurtenant works.*" This would include not only all the power-houses and dams, but the plant and the machinery that would be constructed in connection therewith, and probably upon both sides of the International boundary line, with all of the transmission lines and sub-stations that might be "appurtenant works" for the purpose of transmitting electricity at least two hundred miles and perhaps three hundred. The Aluminum Company admits that the construction of the dams and power-houses alone will involve an investment of at least forty millions. No information is afforded as to the cost of the "works" that may be "appurtenant" thereto. Suppose that all of "the appurtenant works" involved an equal amount of expenditure as that involved in the power-houses and dams. You would have eighty millions of investment, and under this provision of the Statute if the United States found it necessary to remove the works in order to provide adequately for the navigation that may ultimately be developed in the vast country reached by the head waters of the St. Lawrence and the chain of great "unsalted seas" connected therewith, the Company would be entitled to "the reasonable value thereof" on the basis of "*full compensation*" to be determined ultimately by twelve men, who would have the right to say how much should come from the Treasury of the United States to reimburse the actual investment made by a company on the faith of an Act of the State and Federal legislatures. It is safe to assume that the private corporation would not suffer any very marked reduction upon its original investment under such circumstance.

Attention is here called to the two concluding provisos of Section 4 of the Act of June 23, 1910. The first has already been quoted. The second provides that

> "The authority granted * * * shall terminate at the end of a period *not to exceed fifty years* from the date of the original approval of the project under this Act unless sooner revoked as herein provided or Congress shall otherwise direct."

The third proviso reads as follows:

> "Provided, however, that this limitation shall not apply to any corporation or individual heretofore authorized by the United States *or by any state* to construct a dam in or across a navigable waterway upon which dam *expenditures of money may have heretofore been made* in reliance upon such grant or grants."

This proviso was a part of the amendment of June 23, 1910. By a very fortunate and happy coincidence it covers exactly the case of the Aluminum Company.

By the provisions of the second proviso the authority conferred upon all persons or corporations developing power terminated at the end of fifty years. Corporations covered by the third proviso were excepted from this provision as to termination at the end of fifty years and could therefore have a perpetual franchise.

It happens that the Long Sault Development Company, while not yet authorized by the United States, was authorized by the state of New York on May 23, 1907, to construct dams, etc., and it also happens that the Long Sault Development Company has undoubtedly expended some money in reliance upon the "grant" of the state of New York. They contended before the Committee that they had expended $1,738,-373.12. We know of no other company that enjoys the advantage of coming within the exception provided in this general law, so that while companies hereafter authorized either by the State or the United States must receive their authority subject to termination at the end of fifty years, by virtue of this exception, the Aluminum Company, otherwise known as the Long Sault Development Company, enjoys a perpetual franchise. It should also be here remarked that the claimed expenditure of $1,738,373.12, while urged before the Committee as a reason why Congress should concur with the New York legislature in giving the necessary authority cannot in any legitimate sense be urged as a reason for the grant of such authority, because, while it may be that they have made the expenditure in part at least, on the faith of the New York Statute, there is no sense in which they can be said to have made such expenditure on the faith of the action of Congress, because Congress has not yet acted, and they can hardly assume that they can proceed with large expenditures in anticipation of the favourable action of Congress and then insist that such expenditures should be considered by Congress in entitling them to favourable action in connection with the matter of authorization.

IV

The project will injure and not improve navigation

The project is primarily one of power development, with navigation incidental thereto. No obligation is imposed upon the Company to improve navigation—simply not "to impair or obstruct the navigation."

It is true that the Aluminum Company produced able, distinguished and experienced engineers, such as Messrs. Freeman and Noble, who were confident that the project would result in an improvement to navigation. They thought that the currents and character of the river could be ascertained as well in rowboats as in the large steamers that actually navigate the river, which does not seem to us to be a

justifiable inference. Mr. Noble admitted that he had at one time considered the question of navigation with reference to the Long Sault rapids, where the project is to be located, and then decided upon a canal around the rapids instead of improvement in the rapids, and suggested that the relative expense was one of the elements involved. While they had devoted some time to the consideration of this project, neither of them claimed to have made a comprehensive study of the whole river or to be thoroughly familiar with all of its conditions, or that with reference to this project they had studied it primarily as a navigation proposition.

Mr. John Kennedy of Montreal appeared for the Montreal Board of Harbour Commissioners. He is an engineer of at least equal ability, character and experience. He lives upon the St. Lawrence river. He has made it a life study, and more particularly as to its navigation. He did not hesitate to express the opinion that the project upon the facts disclosed would result in an impairment of navigation instead of an improvement.

Two captains and pilots, who have been engaged for years in the navigation of the St. Lawrence, both upon freight and passenger vessels, joined in expressing the same opinion.

The experience of the Canadian Government in an energetic effort to improve navigation at the Galop rapids, is a conclusive demonstration of the fact that the opinion of the highest engineers is of very trifling value as to the effect of any effort to improve the St. Lawrence river. The Canadian Government, under the advice of its best engineers, expended $1,100,000 in an attempt to improve navigation at the Galop rapids within the last few years. When the improvement was completed its effect was such that no insurance company would carry insurance upon vessels that use it. It cost the Canadian Government $1,100,000 to demonstrate that the opinion of competent engineers is not always a safe basis to proceed upon in attempting to improve this river.

The Richelieu & Ontario Navigation Company is a corporation chartered both in Canada and the United States. It has assets of over five millions. It operates a passenger and freight service on lake Ontario and on the St. Lawrence river between Niagara, Kingston and Montreal. It has about 21 passenger and freight vessels. It operates during four months of the year on the St. Lawrence river, and runs its boats down all of its rapids. The principal of these rapids are the Long Sault and Lachine rapids, the Long Sault rapids being in many respects the most important and attractive. It operated two boats on the river the past season, representing an investment of $400,000. It has another already completed at a cost of $200,000 to run during the next season. It expends $35,000 in cash every year for advertising. It carries during the months of June, July, August and September upon these tourist steamers down these rapids between fifty and sixty thousand people

each year (an increase of about 50 per cent. during the last five years), eighty-five per cent. of whom come from the United States. The attractions on the route are the features that draw substantially all of this travel. The fare is $5.00 from Kingston to Montreal. The project absolutely eliminates the Long Sault rapids, and according to the statement of Mr. O'Donohue, the Assistant Manager of the Company, and Captain Batten, its chief pilot, who has the actual charge of the operation of one of its steamers during the summer season, the construction of the lock and its use at the Long Sault rapids, which will be needed if the project goes through, will on account of the time required therein and the insurmountable difficulties of navigation at and below the Lachine rapids, also eliminate that rapids. With these two rapids eliminated the business of the Richelieu & Ontario Navigation Company would be substantially destroyed. This alleged improvement to navigation will cost the Richelieu & Ontario Navigation Company hundreds of thousand of dollars, and deprive thousands upon thousands of American citizens of a healthful life-giving pleasure, but will no doubt add to the profits of the Aluminum monopoly.

Captain W. G. Batten, with thirty-five years', and Captain J. H. Logan, with about forty years' practical experience in navigating the river, covering the Long Sault rapids, both say that the project would be impracticable for freight-carrying vessels below the power-houses at their contemplated location, and both agree as to the effect it would have upon the Richelieu & Ontario Navigation Co.

The river northeast of, and below the proposed Long Sault and Barnhart Island power-houses to the eastern end of the Cornwall canal is not now used for navigation except by passenger steamers, mainly going down the river, and by log rafts. In order to utilize the proposed lock, freight boats will have to go up the river at this place, and both of these experienced navigators say, as the result of their actual experience at that place in large steamers, that the river is and will be entirely impracticable, if not absolutely impossible of navigation for freight vessels and tows on account of the swift, winding and tortuous current, with its swirls and eddies and narrow channels.

It is impossible for either engineers or pilots to state precisely what the result of the project would be as to navigation. The probabilities only can be suggested. The project once authorized, the investment once made, if the result is disastrous to navigation, the public will have to bear it, except upon the condition of reimbursing the Company for its investment. This is a hazard that Congress ought not to assume.

V

The ice jams caused by the damming of the river would place the country above in great jeopardy.

In 1879, 1887 and 1905 dangerous ice jams were caused in the St. Lawrence river simply by reason of the fact that a bridge of ice was formed by swinging a sheet of ice from one shore to the other. These flowed the river upstream something like ten miles during the last of January. The water was raised near the upper end of the jam from 9½ to 11 feet at different points along the river, and the occurrence of soft weather was the only thing that prevented vast destruction of property. Arresting the flow of this river in mill ponds, either large or small, very greatly increases the probability of the occurrence of jams of this character and makes their occurrence early in December instead of the latter part of January very much more than probable. The injury that would thus result to the people living upon the river above, as well as to the canals that have been constructed by the Canadian Government at an expenditure of millions of money, can not be estimated.

The Aluminum Company contends that there is no danger from this cause, and that the main channel, which they contemplate in their project would be kept open. Mr. Freeman, who is their principal consulting engineer, stated "as to the main channel, that would undoubtedly keep open *except under a rare contingency.*" It is clear that there are contingencies under which the river would be closed, and no foresight can tell when such contingencies will occur or when by a lack of diligence or ability upon the part of the Company an ice jam would be precipitated. It is a hazard that the Canadian Government with its canals, and the people upon both sides of the river, with their property, ought not to be subjected to.

Appreciating these great dangers the state of New York has made it a misdemeanor to

> "detach any field of ice or large body of ice,"

in the Saint Lawrence that

> "forms or is likely to form a bridge or passage-way between an island of the river and the main shore or between any islands of such river" (Penal Code, Sec. 1904).

yet it authorizes the construction of dams, which renders the creation of bridges of ice on the surface almost inevitable, leaving it to the diligence or ability of the corporation to avert the dangers and does not require the Company to provide against them.

VI

Congress exercises under this Charter a concurrent power with the New York legislature and assumes equal responsibility for the legislation, so that if the act of the New York legislature from any point of view was improvident and ill advised, the concurrent act of the Congress will for the same reasons be likewise improvident and ill advised.

The Aluminum Company files an elaborate brief discussing the respective rights and powers of the State and Federal governments in the premises, which follows very closely the lines laid down in the able and exhaustive reports of Senator Nelson for the committee on commerce of the Senate, and Representative Stevens as chairman of the sub-committee of the Interstate and foreign commerce committee of the House of Representatives upon this subject.

We have no occasion to enter upon a discussion of those questions, as they are in no sense involved in the matter pending before the Committee. If the state of New York had given to the Long Sault Development Company a clear and unconditional right to develop power and an unqualified title to the lands involved, without any reference to the rights of Congress or to the question of navigation, and the Aluminum Company were now here asking Congress for its permission to exercise the unconditional rights thus obtained from New York in this navigable water, then perhaps it might well be that the question as to whether or not the only power that Congress could exercise would be such as it might exercise "for the purpose of maintaining or improving navigation" would have to be determined. But that is not the question presented.

After defining the purposes of the corporation in section 1, the Act of the New York legislature in section 3, proceeds to authorize the corporation

> "to erect, construct, maintain, operate and use all such dam or dams, canals or canals," etc.

as may be necessary; and in Section 4, provides that

> "After the Congress of the United States shall authorize the construction of dams, locks and canals hereby authorized," etc., * * * "the commissioners of the Land Office shall upon application of said corporation grant unto it the title and interest of the people of the State in and to lands under the waters of the St. Lawrence river to be covered or occupied by said works and locks and power houses," etc.

The Aluminum Company contends, and we concede that the title to such lands is in the state of New York, and it is clear that the Company cannot acquire this title and this right to "erect said works" *until Congress shall "authorize the construction of dams,* etc." The

legislative steps are, first, authorization by the state of New York; and, second, authorization by Congress. *Until both authorizations concur* the corporation has no right to proceed and the Act is inoperative. It is the *Act of the legislature of the state of New York* and not the necessity of protecting navigation that makes the concurrence of Congress necessary. It is a condition that the legislature had a right to impose and did impose. There is no intimation in the Act that Congress has to act in the interests of navigation or in any other interest or from that or any other point of view in deciding to "authorize" as provided. This condition thus imposed upon the corporation by the Act is unlimited and unqualified and does not confine the Congress in reaching its determination to the protection of navigation or to the accomplishment of any particular purposes. The discretion, the exercise of which will make the Act operative or inoperative, is full, complete, unqualified and conclusive. It imposes upon Congress the full responsibility of determining whether or not upon all of the important public considerations involved this stupendous natural resource shall be delivered for all time to the exclusive control of the Aluminum monopoly. It makes the Congress a joint sponsor of the project, as without its concurrence it cannot become an accomplished fact. If this condition had not been imposed by the Act of the New York legislature, the Act of Congress could not have had any effect upon the conveyance of the title and the consummation of the grant to the Company. Congress might in such case have refused to allow the works to be constructed in the river, but that is as far as it could have gone. By expressly making the Act inoperative, except upon the authorization by Congress, the legislature of New York have imposed upon Congress the responsibility of saying whether or not the Act shall or shall not become operative as a legislative contract between the state of New York and the Long Sault Development Company. By so doing it has conferred upon Congress a far greater power than it possessed under the Constitution, and that is, the right to say whether this extraordinary contract with the Aluminum Company shall or shall not be completed. This being true, every important public consideration that contraindicates the wisdom and propriety of allowing the project to be consummated upon the terms proposed are elements that must be considered by Congress.

VII

The character of the Charter of the Long Sault Development Company so far as it relates to navigation.

In the preamble of the Act it is stated, among other things, that it is

"for the purpose of improving the navigation of the St. Lawrence river."

In the first section it is also declared, among other things, that the purposes of the corporation are for

"and the permanent improvement of navigation of the St. Lawrence river at and above and below said place."

Section 3 of the Charter defines in considerable detail the rights and privileges that are conferred upon the corporation and provides, among other things, that

"the said rights being granted upon *the express condition* that said corporation, etc." * * * (here follows provisions as to compensation for injuries and provisions in relation to locks and dams and complying with acts of Congress, etc.) "*and also upon condition* that the rights hereby granted shall never be so used as to impair or obstruct the navigation of the St. Lawrence river, but, on the contrary, that said navigation shall be preserved *in as good condition as, if not better than, the same is at present,* regard being always had to the amount of the natural flow of water in said river as affecting its navigability from time to time."

Section 4 provides that after the Congress of the United States shall have authorized the construction of the works involved, a conveyance of the title and interest of the people of the State in the lands covered by the works shall be made, but there is no suggestion or intimation in Section 4 or in any other portion of the Act, that the United States is expected or required to impose any conditions that will improve navigation. So far as the Charter is concerned, the Company is under absolutely no obligation whatever to improve navigation. The authorization provided for by Congress is not predicated upon either maintaining or improving navigation.

The Dam Act of 1906 (*U. S. Stat. at Large, Vol.* 34, *p.* 386) did not require the Chief of Engineers to impose as a condition of the construction of a dam the improvement of navigation. That provision did not appear in the Act of 1906 until it was amended by the Act approved June 23, 1910, where it was provided that

"As a part of conditions and stipulations imposed by them shall provide for improving and developing navigation."

So that under the Charter of this Company there is no obligation resting upon the Aluminum Company to improve in any degree navigation as a part of the consideration of the vast rights contemplated to be transferred to them. It is clear that the preamble and the first section of this Charter are misleading and deceptive, as while they would lead the cursory reader to believe that one of the principal purposes of the Charter was the improvement of navigation, the specific provision which follows authorizing the exercise of all the rights, powers and privileges of the Company, without the improvement of navigation, is directly inconsistent therewith.

VIII

The compensation provided for by the Charter of the Long Sault Development Company is grossly inadequate and ought not to be approved by Congress, as it will have to be if Congress concurs in the authorization desired.

The compensation provided for is found in Section 4 of the Charter—$10,000 is payable after Congress shall concur in authorizing the construction; $15,000 in 1910; $20,000 in 1911. After 1911, upon the first 25,000 horse-power, "the average amount of electrical horse-power generated" during said year "at the rate of 75 cents per horse-power." In excess of 25,000 up to 100,000 "at the rate of 50 cents per horse-power," and in excess of 100,000 "at the rate of 25 cents per horse-power." Just exactly why this peculiar scheme of progressive reduction in price to be paid, predicated upon a condition where it is obvious that there would be a correspondingly progressive profit in the utilization of the power, has not yet been adequately explained.

Mr. Davis, the president of the Aluminum Company, stated that his company contemplated utilizing some 100,000 horse-power at the South Sault power-house on the American side, all of which could be developed without touching the main channel, and that the 75,000 horse-power developed and utilized after the first 25,000 would be at a considerably less cost and at a greater corresponding profit to the Company, and at the same time their burden of payment to the State would be correspondingly decreased instead of increased. Why the State should receive less when the corporation was making more is somewhat anomalous, to put it mildly. If this is the first effort on the part of the state of New York, as was suggested, to conserve its natural resources, it is hardly prudent to allow this peculiar scheme for compensation to become the precedent for the price to be paid therefor. Congress must approve this scheme of compensation in order to concur in authorizing the construction desired.

There is a provision in this section of the Act which might deprive the state of New York of a larger part, and perhaps the whole, of this compensation, as it provides:

> "But in case said corporation shall at any time be compelled to make any payment to the Dominion of Canada or the Province of Ontario for the use by said corporation of any portion of said water to generate power as authorized by this Act, said corporation *shall be entitled* to an equitable readjustment of the rate of compensation to be paid to the State for that portion of the said water for the use of which said corporation shall be compelled to make payment to said Dominion or Province."

Then follows a provision for making the readjustment by arbitrators. It will be perceived that while the *amount* is to be determined by arbitrators, the Act specifically confers upon the Long Sault Development Company the *right* to a readjustment. It says, "*said corporation shall be entitled to an equitable readjustment* of the rate of compensation, etc.", so that even this compensation is bound to be reduced in case Canada imposes any price for the development of water-power. No definite basis was presented to the committee upon which a conclusion could be reached as to the value of this power. It was conceded by Mr. Freeman that the cost of development and installation and the cost of operation and the price for which the power could be sold were the necessary elements involved in the determination of the value of the horse-power. He admitted that the elements were not sufficiently definite to entitle him to reach a conclusion upon either the cost of development and installation or the cost of operation, or upon the price for which it could be sold. The Aluminum Company has absolutely failed to furnish any of the elements upon which a definite conclusion could be reached. Inasmuch as power can be developed upon the St. Lawrence river at Waddington, for $48 a horse-power, and the contemplated development cost here would be only $80 per horse-power reckoning the total development cost at forty millions, and the horse-power to be developed 500,000, on a 5 per cent. basis $4.00 per year per horse-power, and electric power is now being sold at Ottawa for $15 per horse-power, a distance of only sixty miles from the Long Sault rapids, and power can be transmitted commercially 200 miles with a loss of only 10 per cent., here is a margin of $11 a horse-power to cover interest on cost of transmission plant and operating expense and profit. It is evident enough that the project is susceptible of developing an enormous profit, the amount of which in the absence of the information withheld by the Aluminum Company, it is impossible with any definiteness to ascertain.

Mr. Freeman stated that

> "Looking at it in a very general way, I thought this proposition would cost some $80 per horse power, all complete."

This would mean on a five per cent. basis $4 per annum for horse-power. He declined to give any estimate of the cost of operation on the ground that he could not do so "without making a detailed statement of all the different elements." He objected to the five per cent. basis for the reason that

> "You cannot finance a water-power project of this kind in a locality like that without putting in various other elements and speculative elements in the way of common stock and preferred stock and brokerage and percentages to the underwriting syndicate."

Then followed this examination:

MR. LITTLEFIELD: Do you mean to say that you do not think you could handle this proposition without the familiar process of over capitalization, and watering of stock?

MR. FREEMAN: I do not know that it is over capitalization.

MR. LITTLEFIELD: Some people think it is; the issuing of stock without anything but the expectation or the hope of successful speculation. Is that right?

MR. FREEMAN: Yes.

MR. LITTLEFIELD: Instead of its being watering of stock it is issuing stock on the hope of a successful speculation?

MR. FREEMAN: Capitalized hope?

Speculation by corporations upon the hopes and desires of the unwary and unsuspecting is not an unfamiliar incident of financial practice. It is interesting to learn that the Aluminum Company expects to conform to this time-honored practice and that at the proper time the public will be allowed as usual to gamble. *There can be no gamble unless Congress "shall authorize" it. Will it promote such a speculation?*

It is to be further borne in mind upon the question of the adequacy of this compensation that while the ultimate minimum development of power contemplated is 500,000 horse-power, that that by no means measures the return that it is possible for the Aluminum Company ultimately to receive for the power. The Act requires them to pay compensation "upon the average amount of electrical horse-*power generated* during such year." It is a well-known commercial fact that it is possible for electrical companies to sell to their customers an amount of power largely in excess of what they can actually develop or generate. Upon this point Mr. Rickey, the practical engineer of the Aluminum Company, said:

"Q. Where there is a large number of customers, that would involve an increase of 75 to 100 per cent. over the amount developed?

MR. RICKEY: In some places it is estimated at 100 per cent.

Whether or not an adequate demand for all of this power can be developed is, of course, a matter of uncertainty. The power is to be granted for all time, and it is not a question as to whether or not the demand can be created within the next twenty, thirty or fifty years. The question is whether there are possibilities for the creation of the demand in any time to come. There is no provision in the act for any readjustment of price. If the adequate demand can be created with the necessary number of customers so that when power is sold on the peak basis, the overlapping of the peak loads enables them to sell vastly more than they generate. While they may continue to generate 500,000, it is quite possible that they might sell 1,000,000 horse-power, resulting in a profit beyond the dreams of avarice. The steady and

continuous diminution of the fuel supply is constantly increasing the value of water-power, its only substitute, and thus emphasizes the situation.

Enough appears from the facts above stated to show that the compensation reserved by the state of New York in its Charter is grossly inadequate. If the state of New York and the United States believe that their natural resources should be properly conserved, we submit that it should not begin the process of conservation by contracting for a compensation for all time that is grossly inadequate, and with the peculiar provision that might by virtue of the action of the Canadian Government in asserting its proper rights, deprive the state of New York of substantial compensation. It is believed that when the Canadian Government act with full information and in accordance with its present well settled policy, it would not dream of granting these vast rights under conditions which make them practically a princely gift rather than the assumption of any burden appreciable in its character by the donees of the rights.

In his presidential message at the opening of this Congress, President Taft indicated clearly the policy that should be pursued by the Federal Government which would require a leasing

> "for not exceeding fifty years upon a proper rental, and with a condition fixing rates charged to the public for units of electric power; both rentals and rates to be readjusted equitably every ten years by arbitration or otherwise, with suitable provision against assignments to prevent monopolistic combinations."

Congress adopted a similar policy at Sault Saint Marie with reference to the Michigan Lake Superior Power Company, then in the hands of receivers, with an expenditure of about seven millions already made in developing water-power, when it provided:

> "That a just and reasonable compensation shall be paid for the use of all waters or water-power now or hereafter owned in said Saint Mary river by the United States, whether utilized in said River or in any lateral canal (Michigan Lake Superior Power Company) said compensation to be fixed by the Secretary of War * * * and the Secretary of War, in his discretion, may provide for readjustment of compensation at periods of ten years." (Act approved March 3, 1909, U.S. Stat. at Large, Vol. 35-1, page 821).

It is hardly necessary to suggest that a proper rule for the Federal Government would be quite proper for the state Government, and that the scheme of compensation in this project bears no resemblance whatever to the method suggested by the President and adopted by Congress for the conservation of Federal water-power. It not only creates a great monopoly of all the power and instead of providing "against assignments to prevent monopolistic combinations," by Section 10, which reads as follows:

> "This act and all the terms, conditions and provisions thereof shall apply to the successors and assigns of the incorporators named in the first section thereof,"

would seem to contemplate assignments without limit.

The fact that the New York legislature fixes this compensation cannot relieve Congress of its responsibility upon this point. The legislative history shows that the Bill was first passed in the New York legislature without any provision for compensation and that it was returned by the Governor for amendment in that respect. We are informed that there was no hearing upon this Bill before the committees that reported it and practically no debate upon its passage. It is claimed that after many conferences with the Governor the compensation provided was agreed upon. It appeared clearly at the hearing that the Governor had no more information than was presented to the Committee which was entirely inadequate for the purpose of reaching any conclusion as to the value of the power. Further than that, when questioned upon the point as to whether the development of one-half a million horse-power was disclosed to Governor Hughes, Mr. Freeman cautiously said:

> *"I do not think that came out very fully."*

So that the conclusion reached by the Governor in the hurry of a legislative session was reached upon an entirely inadequate basis, and without having before him the information necessary to a proper and just conclusion.

IX

The project contemplates a monopoly of 500,000 *horse-power on the part of the Aluminum Company without any obligation to develop it.*

There is nothing in the Charter that requires the Long Sault Development Company to generate any horse-power. It is true that the act provides that the title to the lands to be conveyed to the corporation

> "shall revert to the State unless the same are actually used by said corporation and covered by its canals, dams, reservoirs, gates, sluices, trunks, pipes, bulkheads, piers, flumes, abutments or other works appertaining thereto, or are necessary to the enjoyment for said purposes of any lands so used or covered within fifteen years from the conveyance thereof."

This provision clearly applies to the works to be constructed by the Company. Nothing is said about the development by the works of water-power or as to the amount of power to be developed. The effect of the provision is that if the various works described are not erected then the title reverts. There is no suggestion that any horse-power or

any amount of horse-power must be developed in order to preserve the title of the Company to the land. It is also true that section 9 provides that the

> "said corporation shall begin the work of constructing its dam pursuant hereto within one year after the Congress of the United States shall authorize the construction of the dams, locks and canals hereby authorized, and in case such construction shall not be so begun, the grants, rights and privileges hereby granted may be forfeited,"

and it is also true that H. R. 14531 provides

> "that the actual construction of the works hereby authorized shall be commenced within one year and completed within fifteen years from the date of the passage of this Act," etc.

but this simply requires the construction to be begun, and to be completed. Nothing is provided with reference to the power to be developed. The only thing that can be said to indirectly require the Aluminum Company to develop power is the provision found in the section relating to compensation, which provides that

> "if for any year after 1911, the amount payable at rates aforesaid, is less than $25,000, then said corporation shall pay for such year the sum of $25,000 instead of the amount that would be payable at the rates aforesaid."

This undoubtedly does require the corporation to pay at least $25,000 per annum, and to take care of this they would only need to generate under the scheme—the compensation provided in the Act—50,000 horse-power at 50 cents per power, which would be equivalent to $25,000 a year. Inasmuch as they contemplate the building of a plant that will use within the next seven or eight years at least 100,000 horse-power, this provision would very clearly not operate as a burden upon them, because with a development of 100,000 horse-power they would be paying instead of $25,000, $50,000 per year. The only provision in the Act that even induces them to develop horse-power, does not contemplate the production of more than 50,000 horse-power. They would still have the right to dam the whole river and control the whole power, and whether or not the power thus monopolized by them would be generated and utilized would depend altogether on the view that the corporation itself took as to its own financial interests without any reference to the public rights or the public interests or the public requirements.

The Long Sault Development Company being chartered for a private purpose, manufacturing, and not exercising a public use, the public will have no power to compel the Company to develop and sell a single horse-power.

X

It is conceded that the principal purpose of the Long Sault Development Company is a manufacturing purpose and that the power of eminent domain cannot be exercised therefor.

It may be contended that the Aluminum Company have taken care of this by the purchase of all of the riparian rights, but it is not conceded that they have covered the territory that will be necessarily affected by the project As to such as they have not purchased they have no Constitutional right to take any part of their property for the purposes of this corporation.

It is respectfully submitted in conclusion that in view of all of the foregoing considerations which we think are the most important and salient, although they do not include all that might be suggested, that Congress will not be justified in concurring with the New York legislature in making effective its attempt to turn over to the Aluminum Company with its monopoly of aluminum products for practically no consideration, the monopoly of these stupendous natural resources.

C. E. LITTLEFIELD

APPENDIX VI

MEMORANDUM

CONCERNING THE RIGHTS AND POWERS OF THE LONG SAULT DEVELOPMENT COMPANY BY VIRTUE OF THE ACT OF THE LEGISLATURE OF THE STATE OF NEW YORK, UNDER WHICH IT IS INCORPORATED, BEING CHAPTER 355 OF THE LAWS OF 1907*

BY SECTION 1 of Chapter 355 of the Laws of 1907 of the state of New York the Long Sault Development Company is constituted a body corporate for the purpose "of erecting, constructing, maintaining, operating and using in connection with the St. Lawrence river a dam or dams, a canal or canals, a reservoir or reservoirs, and a power-house or power-houses, and works appurtenant thereto, at or near Long Sault island, in the county of St. Lawrence, and of erecting and constructing a lock or locks, and works appurtenant thereto, at or near the same place, all for the development of electrical power and energy and the permanent improvement of navigation on the St. Lawrence river at and above and below said place; and also of constructing and maintaining a bridge upon or in connection with said works and of carrying on the manufacture of commodities with the said power."

Section 2 of the Act confers upon the Company corporate powers usually possessed by corporations organized under general laws.

Section 3 of the said Act of Incorporation provides as follows:

> "SECTION 3. Said corporation shall have the right to erect, construct, maintain, operate and use all such dam or dams, canal or canals, reservoir or reservoirs, gates, sluices, trunks, pipes, bulkheads, piers, flumes, abutments, and other works appurtenant thereto, as may be proper or useful for the purpose of the development of water-power, and of electrical power and energy therefrom, at such point or points upon or adjacent to the south shore of the St. Lawrence river, near Long Sault island or Barnhart island, and upon the said islands or either of them, and between said islands, and between said islands or either of them and the shore of the said river and Sheek island (but not across the international boundary line unless consented to by the Dominion of Canada), as may be selected by said corporation, and also in and upon so much of the said river and the bed thereof as lies to the south of the international boundary line, at or near Long Sault island or Barnhart island, either independently or in connection with like works now

*This memorandum was presented before the Rivers and Harbours Committee of the United States House of Representatives, and was prepared by those in charge of the interests of the Long Sault Development Company.

erected, or to be erected, in so much of said river and the bed thereof as lies to the north or Canadian side of said international boundary line, and upon and adjacent to the northerly shore of said river; and to erect, construct, maintain, operate and use a power-house or power-houses, and conductors, cables, wires, insulators and other appliances in connection with the said works for the development of electrical power and energy; and also to take and use the waters of said river at and above the points of location of said works heretofore authorized, and to construct and maintain upon, over and in connection with said dam or dams and other works, a bridge or bridges across or partly across the St. Lawrence river, with the approaches thereto, for the use of foot passengers, animals and vehicles, and to charge reasonable rates of toll for passage thereon; the said rights being granted upon the express condition that said corporation shall make just compensation to all persons injured by the exercise of the rights and privileges heretofore granted, and that said corporation shall also erect and construct a lock or locks as may be required by the United States of America, and shall provide electrical power or energy for the maintenance, operation and use of said lock or locks, free of charge, and shall in all other respects perform, fulfill and abide by all and singular the conditions and provisions of this Act, and also of any act of the Congress of the United States relating thereto, and also upon condition that the rights hereby granted shall never be so used as to impair or obstruct the navigation of the St. Lawrence river, but, on the contrary, that such navigation shall be preserved in as good condition as, if not better than, the same is at present, regard being always had to the amount of the natural flow of water in said river as affecting its navigability from time to time."

Section 4 of the Act provides that after the United States shall have authorized the construction of the dams, locks and canals authorized by Section 3, and after the payment to the State by the Company of the sum of $10,000, the New York Commissioners of the Land Office "shall, upon application of said corporation, grant unto it the title and interest of the people of the State in and to lands under the waters of the St. Lawrence river to be covered or occupied by said works and locks and power-houses * * *." Provision is then made for the forfeiture of the title in case the lands so granted are not actually used for the purposes mentioned. Payment is to be made to the State by the company of certain amounts based upon the amount of electrical horsepower generated by the Company's works.

And it further provided as follows, viz.:

"The payments above specified are based upon the assumption that the said corporation under the authority of this Act, subject only to the lawful control of the United States Government, may use for the purposes herein specified, at the places hercin mentioned, all of the waters of the St. Lawrence river south of the international boundary line."

It is thus apparent that the purpose of the New York legislature was to provide for the improvement of navigation at or near Long Sault island on the St. Lawrence river, and in connection therewith to authorize the erection of a plant for the development of electrical power through the use of the surplus water of the river.

The Long Sault Development Company will, when it shall have complied with the requirements of the Federal law and upon the terms prescribed by the statute, become vested with (*a*) the title to that part of the bed of the St. Lawrence river which it is necessary to use in the construction of the works contemplated by the Act, and (*b*) the right to construct and maintain such works and to enjoy to the exclusion of all others the right to divert and use for purposes of operating its works, the surplus waters of the St. Lawrence river; subject, however, to such regulation either in respect of the character of the works or the use of the water of the river as the Federal Government (and, to some extent, pointed out below, the State Government) may from time to time impose in order to maintain unimpaired the navigability of the river.

The jurisdiction of the Federal Government in respect of navigable waters is derived solely from the clause of the Constitution conferring upon it the power to regulate commerce among the several states and with foreign nations. That clause does not vest in the Federal Government any ownership in the flowing water or the use thereof, but only the paramount power to make and enforce such regulations as it deems proper for the preservation or improvement of the navigability of the stream. This power does not, however, enable the Federal Government, where the works are not undertaken at its own expense, to make a grant either with or without compensation, of the right to use the surplus waters of the stream for power purposes—it may only prohibit such use if it interferes with navigation. Subject only to this control by the Federal Government, the power to regulate and control the use of navigable streams for purposes of navigation and to grant rights for the use of the water of the stream for purposes other than navigation, is vested in the States.

Applying these principles to the case of the Long Sault Development Company, it follows:

(1) That the State Government has the power (*a*) to grant to the Company title to the land under water necessary for the construction of its works, (*b*) to determine whether its works will constitute an obstruction to navigation or whether the diversion of the water necessary for its works will affect the navigability of the river, and (*c*) to exact compensation for the use of the surplus waters thus diverted, and:

(2) That there is no power vested in the Federal Government except, in maintaining free navigation, to approve or disapprove the contemplated works of the company or to require modifications

thereof; in neither case, however, exacting as a condition the payment of any compensation for the privilege of erecting and maintaining them.

Title to Bed of River St. Lawrence is Vested in the State of New York

The law upon this subject has recently been correctly summarized in *Fulton Light etc. Co. vs. State of New York* (65 Misc., 263), where the Court of Claims of the state of New York pointed out that under decisions of the courts of the State there are four classes of streams and bodies of water within the State, one of which includes rivers like the Hudson river, where the State owns the bed of the stream and a public easement in its waters, where the tide ebbs and flows and the title of the riparian owner extends only to high water mark. The court remarked that "In this class must also be placed those streams and bodies of water, non-tidal in character, which form a boundary between this State and other States and Canada, like the Niagara and St. Lawrence rivers and lake Champlain."

Under the common law, the title to the soil beneath tidal waters was vested in the Crown, whereas title to the bed of the stream in all waters above the ebb and flow of the tide was in the riparian owners. But in England, where this doctrine arose, there was little difference between navigable streams and tidal waters. The doctrine, if rigidly applied in this country, would have vested in the riparian owners title to the soil beneath the waters of our great rivers and lakes, and this fact early led to the holding by the courts of a number of states that the doctrine was not applicable to the conditions in this country; and in New York it has long been held that the common law rule was not to be applied to the larger rivers of the State. Rights to the land under the waters of the Niagara river were in the case of *Niagara County Irrigation Co. vs. College Heights Co.* (111 App. Div., 770) and also in *Buffalo Pipe Line vs. N. Y. & Lake Erie R. R. Co.*, 10 Abb., New Cas., 107, and in the former case the court referred to one class of rivers as "those where the tide flows and recurs, together with the tideless rivers of the first magnitude, such as the Niagara, St. Lawrence, Mohawk, Genesee and Allegheny. In rivers of this class the riparian owners have no title to the bed of the same, consequently no exclusive privilege therein; but the same remains in the State for the common use and enjoyment of all the public." In *Matter of State Reservation* (37 Hun. 537) it was held, with reference to the waters which form the international boundary line between the United States and Canada, as defined under the treaty of Ghent, that the proprietary right of the

State extends to the centre of the Niagara river. In the early case of *Canal Appraisers vs. Tibbits* (17 Wend., 570) the court said in reference to the Niagara river (p. 619):

> "It is evident that the acts of the Government in reference to almost all the rivers in the State have been upon the assumption that the State had not parted with them, or that the common law was not applicable to them. In the Niagara river, at Black Rock, the State has not only erected a dam for the supply of the canal with water, but has actually leased the water privileges which belong to the owners of the soil, if the common law is applicable to that noble river."

The State has established penal laws covering fishing rights in the St. Lawrence and the Niagara rivers, which would be inconsistent with an ownership of the bed of that river by the riparian owner (*People vs. Gillette*, 11 N. Y. Supp., 461); and it has been customary for the State to make grants of land under the waters of the St. Lawrence river, as appears in the *Thousand Island Steamboat Company vs. Visger*, 179 N.Y., 206.

Even in Canada the common law rule that the title to the bed of a non-tidal river is in the riparian owner is rejected, and it is held that the St. Lawrence river above tide-water is a navigable river, the bed of which is vested in the Crown (*Dixon vs. Snetsinger*, 23 Com. Pleas, Upper Canada, 235).

In the United States Courts there has been some apparent conflict in the decisions. But this has been due largely to the fact that the Court has been influenced by the view held upon the subject in the States where the question has arisen. Where, however, the Supreme Court has been free to pass upon the question, it has held that the New York rule, above referred to, is correct (*Barney vs. Keokuk*, 94 U. S., 324; *Illinois Central R. R. Co. vs. Illinois*, 146 U. S., 387; *Shively vs. Bowlby*, 152 U. S., 1; *Scranton vs. Wheeler*, 57 Fed. Rep. 803; *Packer vs. Bird*, 137 U. S., 661). In *Barney vs. Keokuk* the Court said (p. 338) that there was "no sound reason for adhering to the old rule as to the proprietorship of the beds and shores of such (*i.e.*, navigable) waters. It properly belongs to the States by their inherent sovereignty, and the United States has wisely abstained from extending (if it could extend) its survey and grants beyond the limits of high water. The cases in which this court has seemed to hold a contrary view depended as most cases must depend, on the local laws of the States in which the lands were situated."

Under the common law rule the bed of a navigable stream which is not vested in the State belongs to the riparian owner. At that part of the St. Lawrence river affected by the projected works of the Long Sault Development Company that company is the owner of all of the

land along the shore and it would, therefore, even if the common law rule were applicable, be the owner of the land under the waters of the river.

The United States could under no circumstances have title to the bed of the stream. In *Pollard's Lessee vs. Hagan*, 3 Howard, 212, the United States had attempted by patent to convey the bed of the Alabama river and the Supreme Court held the patent void, because the United States by its acquisition of Alabama through treaty with Spain, had never acquired any title to the soil under navigable rivers and none had been conferred by the Constitution of the United States. To the same effect are the cases of *Martin vs. Waddel*, 16 Peters, 367, and *Good Title vs. Kibbe*, 9 Howard, 471. In *Scranton vs. Wheeler, supra*, Justice Lurton, then Chief Judge of the Circuit Court of Appeals for the Sixth Circuit, said (p. 810) that "the doctrine that the title to the submerged lands within the banks of navigable rivers belongs to the States respectively within which such rivers are situate and not to the United States, was settled at an early day and has never since been questioned." In *Rumsey vs. New York & New England R. R. Co.*, 63 Hun, 200, the Court referred to the decision of the Supreme Court in *Gibbons vs. Ogden* (9 Wheaton 1), and said:

> "Thus the state yielded and granted to Congress the power to regulate commerce and navigation upon the waters of the Hudson River, but it surrendered nothing more. It conferred no proprietary or property rights, and while the power granted is plenary as to the objects specified and implied, yet the grant contains, neither expressly nor by implication, any cession of territory or property." The Court added: "The power bestowed upon Congress comprehends only the use of the water, and in no way diminishes the right of the State as the owner of the soil. * * * It is thus made manifest that Congress has no control of the land under the waters of the Hudson river, and cannot appropriate them to any use * * *."

The State may make an absolute grant to an individual of land under the water of a navigable river. In *Langdon vs. Mayor*, 93 N. Y., 129, it was said that the State had the power to give private rights therein. In *People vs. New York & Staten Island Ferry Co.*, 68 N. Y., 71, it was said that "the legislature may, as the representative of the people, grant the soil, or confer an exclusive privilege in tide waters, or authorize a use inconsistent with the public right, subject to the paramount control of Congress * * *." In *Hoboken vs. Penn. R. R. Co.*, 124 U. S., 656, Mr. Justice Matthews, expressing the opinion of the Court, said (p. 691) that the State had the power to grant submerged lands of navigable waters to individuals and that

> "under these grants the land conveyed is held by the grantees on the same terms on which all other lands are held by private persons under absolute titles, and every previous right of the state of New

Jersey therein, whether proprietary or sovereign, is transferred or extinguished, except such sovereign rights as the State may lawfully exercise over all other private property."

It follows from the above authorities that the land under the waters of the St. Lawrence river belongs to the state of New York and the Long Sault Development Company will by the grant of the State become vested with title to the land under water necessary for its works.

The State of New York has the Power to Grant to the Long Sault Development Company the Right to Construct its Works and to Use the Surplus Waters of the St. Lawrence River for the Purpose of Generating Power.

The nature of the rights of the State with reference to the waters of a navigable stream are peculiar and have no counterpart in any other kind of ownership. The ownership or control of waters is always qualified, inasmuch as the State holds the rights with reference to the use of the flowing water in trust for the people and cannot convey them so as injuriously to affect the right of the public to make use of the stream for purposes of navigation.

In *Sweet vs. City of Syracuse*, 129 N. Y., 316, the Court of Appeals held that there could be no such thing as absolute property acquired in the flowing water, as it had none of the attributes commonly ascribed to property and was not subject to exclusive dominion or control. The Court (p. 335) quoted from *Blackstone* to the effect that "water is a movable, wandering thing, and must of necessity continue common by the law of nature; so that I can have only a temporary, transient, usufructuary property therein." The Court held that the corpus of the stream could never become the subject of fixed appropriation or exclusive dominion, although "the right to its use, as it flows along in a body, may become a property right." While, therefore, there can be no such thing as actual ownership of the "aggregated drops that comprise the mass of flowing water," the rights of the State with reference to the control of the usufructuary property therein or of its potentiality for a variety of useful purposes, not inconsistent with its main function in providing a medium for navigation, are extensive and absolute. Among other things the State may make grants of rights to use surplus water not needed by the public for purposes of navigation. Instances where States have granted such rights will serve to illustrate the extent of this power.

In *Huse vs. Glover*, 15 Fed., 292, aff. in 119 U.S., 543, it was claimed that the locks and dams constructed by the State did not aid navigation, but were an impediment. The court held that the State could determine what promoted navigation, and its decision was final, so long as Congress did not interfere, and that the right to charge toll for the use

of locks erected by the State was based upon the same ground as the right of municipal corporations owning improved wharves upon navigable waters to charge for their use.

In *Monongahela Navigation Co. vs. United States*, 148 U. S., 312, it was held that a State might authorize a private company to construct a dam, or other work, in connection with the improvement of navigation, and might further authorize the company to exact tolls, and that if thereafter the United States Government should condemn the property of such company, it must pay as a part of the damages for the taking the value of the franchise for tolls. The court said (p. 345) that "the assertion by Congress of its purpose to take the property does not destroy the state franchise."

In *Sands vs. Manistee River Improvement Co.*, 123 U. S., 288, tolls were exacted under authority of the legislature of Michigan, and upheld by the court, upon the ground that "Regulations of tolls or charges in such cases are mere matters of administration, under the entire control of the State."

And, finally, the power of a State to grant to private individuals the exclusive right to use the surplus waters of a navigable stream was expressly recognized by the Supreme Court in *Green Bay & Mississippi Canal Co. vs. Patten Paper Co.*, 172 U.S., 58, and in *Kaukauna Water Power Co. vs. Green Bay & Mississippi Canal Co.*, 142 U. S., 254, On the admission of Wisconsin to the Union as a state, Congress granted to it lands, the proceeds of which were to be used in improving certain water-ways of the State, and a company was organized under legislative authority of the new State which with such proceeds constructed in the Fox river, a navigable stream, dams and other works. The works so constructed were subsequently purchased by the United States Government, but the right to use the surplus waters made available by the erection of the dam and not required for the purpose of navigation was not transferred. The United States assumed possession and exclusive control of the river and expended a large amount of money in its improvement while the Canal Company continued in possession of the water-power.

In the *Kaukanna* case the controversy was between the company and a riparian owner who claimed to be entitled to use a portion of the surplus water above the dam for power or other purposes, but it was held that he could not complain for the reason that the project was undertaken by the State, and it was entitled to dispose of the surplus water for its own advantage even though the riparian owner, but for the dam, would to some extent, have been able to use the water as it flowed past his property. The court said that a State probably could not appro-

priate the property of individuals for the sole purpose of creating a water-power to be leased for manufacturing purposes and then proceeded (p. 273):

> "But if in the erection of a public dam for a recognized public purpose, there is necessarily produced a surplus of water which may properly be used for manufacturing purposes, there is no sound reason why the State may not retain to itself the power of controlling or disposing of such water as an incident of its right to make such improvement. * * * *As there is no need of the surplus running to waste, there was nothing objectionable in permitting the State to let out the use of it to private parties and thus reimburse itself for the expenses of the improvement.* * * *
>
> "There was every reason why a water-power thus created should belong to the public rather than to the riparian owners. Indeed it seems to have been the practice, not only in New York, but in Ohio, in Wisconsin, and perhaps in other States, in authorizing the erection of dams for the purpose of navigation, or other public improvements, to reserve the surplus of water thereby created to be leased to private parties under authority of the State; and where the surplus thus created was a mere incident to securing an adequate amount of water, for the public improvement, such legislation, it is believed, has been uniformly sustained (p. 274). * * * The dam was built for a public purpose, and the act provided that if, in its construction, any water-power was incidentally created, it should belong to the State, and might be sold or leased in order that the proceeds of such sale or lease might assist in defraying the expenses of the improvement (p. 281). * * * If any such water-power were incidentally created by the erection of a dam, it was obviously intended that it should belong to the public and be used for their benefit and not for the emolument of a private riparian proprietor (p. 282)."

People vs. Tibbetts (19 N.Y., 523) was an action by the State to recover rents under a lease of one-half of the surplus waters of the Hudson river at the Troy dam. Defendant contended that he was entitled, as riparian owner, to the use of the water, and the lease was without consideration. In sustaining the lease, the court says, per Strong, J. (p. 528):

> "The riparian owner may undoubtedly use the water passing or adjoining his lands for his own advantage, so long as he does not impede the navigation, in the absence of any counterclaim by the State as absolute proprietor. But the State may, as such proprietor of the waters grant them, or any interest in them to an individual. If there is any restriction upon such power, it is that which is imposed by the Constitution of the United

> States * * *. *It is beyond dispute that the State is the absolute owner of the navigable rivers within its borders, and that as such owner it can dispose of them to the exclusion of the riparian owners.* In this case the State exercised its power of disposition in making the lease, and consequently such lease is valid."

It is quite clear from these authorities that if the grant to the Long Sault Company of the right to use the surplus waters of the St. Lawrence river is incident to the main purpose of improving the navigability of the river, it is within the power of the State.

The Federal Government has no right under the constitution, as a condition of approving the plans, to demand a participation in the benefits of the water-power created by the proposed improvement, and there is no basis other than the Constitution for the assertion of such right.

There are two ways in which the National Government exercises its control over structures placed in the waters of navigable streams. It may (1) on its own initiative, and at the expense of the people, undertake works for the improvement of navigable waters, or (2) give or withhold its approval of such works when undertaken at their own expense by private individuals or by any of the States. In the first case, the Government may, perhaps, assume an exclusive ownership and a right to dispose of the usufructuary ownership of the surplus waters; for in that case the expenditure of money has, as an incident to the main improvement, made valuable what had before had no value; and there would be some justice in the view that the Government should be entitled to reduce the expense of the improvement by realizing upon the water-power thus brought into existence. In *Green Bay & M. Canal Co. vs. Patten Paper Co.*, above referred to, there was such a situation, and the court said (p. 81) in relation to it,

> "the entire legislation, State and Federal, in the present instance, has had in view the dedication of the water-powers incidentally created by the dams and canals to raising a fund to aid in the erection, completion and maintenance of the public works."

But where works are undertaken at private expense, a very different situation exists. The power of the Federal Government is then exerted only in a supervisory way. It approves or disapproves. It undertakes no expense and there is no equitable ground for it to claim the incidental benefit accruing from the creation of a water-power. In such case there is no reason why the property rights and control of the State incident thereto should be in any way diminished.

The Federal Government has, as has been pointed out above, acquired under the constitutional provisions no property right in the waters of navigable waters. That has always remained under the control

of the State. In *Rumsey vs. New York & New England R. R. Co.*, already cited, the court held that the people of the State were not only the owner of the soil under the water but that

> "they became vested with the absolute control over the river, and through the medium of the legislature might exercise all the power which could have been exerted by the king previous to the American Revolution (Lansing v. Smith, *supra*).
>
> "That power remained in the people until the 26th day of July, 1778, when they adopted and ratified the Constitution of the United States, which contained the following provision: "Congress shall have power * * * to regulate commerce with foreign nations and among the several States, and with the Indian tribes" (Const. of the U.S., art. 1, Sec. 8, sub. 3).
>
> "The power to regulate commerce extended to the regulation of navigation (Gibbons v. Ogden, 9 Wheat., 189). Thus the State yielded and granted to Congress the power to regulate commerce and navigation upon the waters of the Hudson river, *but it surrendered nothing more. It conferred no proprietary or property rights, and while the power granted is plenary as to the objects specified and implied, yet the grant contains, neither expressly nor by implication, any cession of territory or property*" (p. 207).

If as a condition of granting a permit to build a dam the War Department should require the payment of a part of the profit derived from the water-power incidentally created, it would be assuming control of the property in the surplus water without having expended any money in its creation; and this would be beyond its power, for the purpose of the Constitutional provision was not to deprive the states of power to regulate the use of navigable streams "but simply to create an additional and cumulative remedy to prevent such structures, although lawfully authorized (*i.e.*, by the States), from interfering with commerce." *Lake Shore & M. Ry. vs. Ohio*, 165 U.S., 365.

The question under consideration came before the Department of Justice in 1909, upon an application for a permit to build a dam in the Wisconsin river, and the opinion of the Attorney-General was requested as to the right of the Government to exact as a condition of granting the permit, a payment by way of compensation to the Government for the privilege of building the dam. Speaking of the Act of Congress of June 21st, 1906, entitled "An Act to regulate the construction of dams across navigable rivers," the Attorney-General said (Opinions of Attorney-General, Vol. 27, page 467):

> "I am clearly of opinion that Congress did not by this Act mean to authorize those officials to require as a condition to the license the payment of a sum or sums by way of compensation for the privilege granted, although they may undoubtedly require such payments or assumption of expenses as are necessary or proper to insure the navigability of the stream. Within the scope of the

> powers granted, the discretion of the Chief of Engineers and the Secretary of War is not limited. * * * They may require the licensee to bear the entire cost of such construction, maintenance and operation. * * * But, in my opinion, they are not authorized to require a payment by way of compensation as for a franchise or privilege granted by such license."

This seems to be the only official opinion of the Department of Justice upon the subject. President Roosevelt, it is well known, entertained and repeatedly expressed the contrary opinion. In returning without his approval the bills relating to the construction of dams across the Rainy river and the James river, Missouri, he based his action upon the ground that the Federal Government could, as a condition of granting the right to erect dams, exact the payment of certain sums in order that they might be used in a general scheme for improving navigation, upon the theory that the people owned the flowing waters of navigable streams, and that the United States was the representative of the people and had the power to grant the right to use such waters.

The theory that the National Government, as the representative of the people, has any property right in the flowing water is erroneous as a proposition of law. It is true that the people have such a property right, as has been pointed out above, but it is held in trust for their benefit by the states and not by the United States. It cannot be held concurrently by the National Government and the states. So far as President Roosevelt's view is based upon the theory that there is a property right of the United States in flowing waters, it has no support in any decision of any court in this country.

To exact compensation for permission to build dams in navigable rivers in order to provide for a general scheme of navigation would be contrary to the practice which has prevailed for many years in the War Department. In 1905 a bill was proposed in Congress to provide for and regulate the use of navigable rivers for industrial purposes by means of water-power obtained therefrom. This bill empowered the Secretary of War to authorize private persons to construct dams and to develop and use water-power at points on navigable rivers where the Government had not built such structures. Gen. Mackenzie, Chief of Engineers, made a report to the Secretary of War (Mr. Taft) in which he said:

> "The Federal Government has no possessory title to the water flowing in navigable streams, nor to the land comprising their beds and shores, and hence Congress can grant no absolute authority to anyone to use and occupy such water and land for manufacturing and industrial purposes. The establishment, regulation, and control of manufacturing and industrial enterprises, as well as other matters pertaining to the comfort, convenience, and prosperity of the people, come within the powers of the states, and the Supreme

Court of the United States holds that the authority of a state over navigable waters within its borders, and the shores and beds thereof, is plenary, subject only to such action as Congress may take in the execution of its powers under the Constitution to regulate commerce among the several states."

The Secretary of War adopted the report of Gen. Mackenzie and stated that it was "comprehensive, accurate and instructive." Subsequently in 1907 a hearing was held before Mr. Taft, then Secretary of War, in relation to the water-power of the Des Plaines and Illinois rivers. It appeared that the Des Plaines river was probably not a navigable stream. But the Secretary of War, in deciding the application, said:

"But even if it had been a navigable stream, and even if the application had been made, and properly made to this department, to say whether this would interfere with navigation if the department concluded it would not interfere with navigation, then it is not within the power of the department to withhold its expressing such an opinion and granting such a permit, so far as the United States is concerned, for the purpose of aiding the State in controlling the water-power. If the State has any control over the water-power, which it may exercise in conflict with the claimed rights of the riparian owner, then it must exercise itself, through its own legislation and through its own executive officers. All the United States does, assuming it to be a navigable stream, is merely to protect the navigation of the stream. With reference to the water-power, it has no function except in respect to water-power which it itself creates by its own investment in property that it itself owns; and then, of course, it may say how that water-power shall be used.

"But with respect to the water-power on a navigable stream, which may be exercised without interference with the use of the river for navigation purposes, that is controlled by the laws of the State. It is controlled by the riparian ownership and by the common law as it governs those rights. Therefore I do not see, with reference to this matter, that this department has any function to perform or which it can perform."

When the last amendment of the law relating to the building of dams across navigable waters was under consideration in Congress, a sub-committee of the committee on Interstate and Foreign Commerce considered the entire subject and under date of February 25th 1909, made a comprehensive report from which we have taken the foregoing extracts from opinions of the Secretary of War. The conflicting views upon the subject of the power of the Federal Government in relation to navigable waters were fully set forth in this report and the sub-committee reported a bill under consideration in alternative forms. In one form the bill represented the view of President Roosevelt and authorized the War Department to exact as a condition of granting a permit to build a dam such charges as might be proper and

legal, the proceeds of which were to be paid into the Treasury to be applied to the improvement of navigation. In the other form of the bill, the purpose for which charges were authorized were declared to be to reimburse the United States for any expense in restoring conditions "with respect to navigability as existing at the time" the privilege was granted. Congress adopted the latter form. It is quite evident from this action and from the general provisions of the act as finally passed, that Congress rejected the theory that the United States had any power to make a charge for the use of a water-power incidentally created by a dam except so far as such charge might be necessary in connection with the preservation or improvement of the navigation of the waters affected.

It thus appears that while President Roosevelt attempted to inaugurate a governmental policy based upon the theory indicated in his veto messages above referred to, the Department of Justice and the Department of War have proceeded upon the contrary view, and Congress has likewise refused to assert the broader power.

Under the Act of the legislature of the state of New York, the Long Sault Development Company, as compensation for the grant of corporate and other privileges, has agreed that it will pay to the State a certain proportion of the profits derived from the water-power which is to be created. Obviously by this Act the State has asserted the right to dispose of the water-power, making it, however, expressly subject to the power of the Federal Government to regulate the manner in which navigation in the stream shall be provided for. Presumably the State by this action has protected the interest of its people in the water-power which is to be created. If the Federal Government under its reserved constitutional power confines itself to safeguarding the interests of the people of the United States in preserving or improving the navigability of the St. Lawrence river, all the interests of the public will have been protected, and the rights of the State established by an unbroken line of judicial decisions to enjoy the usufructuary property in the waters within its boundaries will be respected. There is no reason why the enhancement under modern conditions of the value of the water-power of our navigable waters should be made the basis for a theory of law or a policy of the Government which would ignore the rights of the State so long and so uniformly recognized.

Conclusions

The following conclusions may be drawn, viz.:

1. The state of New York owns the land under the waters of the St. Lawrence river and has the power, and has agreed, to transfer its title thereto to the Long Sault Development Company.

2. The State has the power, and has by the Act of Incorporation agreed, to grant to the Development Company the right exclusively to use the surplus waters of the river for its corporate purposes.

3. The United States by Congressional or Executive Act has power to grant or to withhold permission to erect the dam and its appurtenances, but this power can be exercised only for the purpose of maintaining or improving navigation.

4. The United States Government has no power to exact, as a condition of its permission to erect the dam, that the company shall pay any compensation for the use of the surplus waters or for any other privilege, although it may always determine how much of the water of the river is needed for purposes of navigation and therefore how much may be withdrawn for other purposes.

5. When the development company shall have obtained title to the necessary land under water and shall have built its works pursuant to the plans approved by the State and National Governments, it will become vested with the exclusive right to use the surplus waters of the river, subject alone to regulation by the United States (and perhaps the State) of the amount to be from time to time diverted.

APPENDIX VII

REFERENCE should be had to the Reports of the International Waterways Commission, especially to Third, Fourth, Fifth and Sixth Progress Reports of the United States Section.

NOTE: The Bill, H. R. 25707 of the 59th Congress, Second Session, which was introduced into the House of Representatives on behalf of the Long Sault project, will be found at page 74 *et seq* of the Third Progress Report, and at page 76 *et seq* will be found Chapter 355 of the Laws of the State of New York for 1907, the same being the Act of Incorporation for the Long Sault Development Company.

ALSO

The Sixth Annual Progress Report at page 10 *et seq*, gives a discussion respecting Bill H. R. 14531, including a Report by the American Section of the International Waterways Commission to the Chairman of the Committee on Rivers and Harbours, dated March 11, 1910.

APPENDIX VIII

PROPOSED WORKS

Of the St. Lawrence Power Company and Long Sault Development Company in the St. Lawrence River Near Barnhart Island*

PRELIMINARY

THE St. Lawrence Power Co., Limited, owns the power development at the foot of Sheek island near Mille Roches, Ontario. It takes water from the Cornwall canal on the north side of Sheek island and furnishes electric power and lights for the Cornwall canal and for Cornwall, Moulinette, Mille Roches and Wales.

The fall in the St. Lawrence river adjacent to the plant of the St. Lawrence Power Co., Limited, would, theoretically, furnish a substantial amount of power. The present owners of this Company secured possession believing that this theoretical power could be developed, at a reasonable cost, so as to materially increase the capacity of the existing plant. Investigation has shown that without the co-operation of the riparian owners on the opposite American shore, the St. Lawrence Power Co., Limited, can develop this power only to a very slight extent.

The capacity of the existing plant is limited to about 3,000 continuous horse-power and 2,300 intermittent horse-power available only a portion of the year. This continuous power could perhaps be increased to 6,000 horse-power, but this is the maximum amount that can be commercially developed entirely in Canada and without the co-operation of the American interests. There is no other suitable site, adjacent to the Long Sault, that the St. Lawrence Power Co., Limited, could use for independently developing additional power.

The Long Sault Development Co., a New York State corporation, is empowered by its charter, to construct dams, power-houses, locks and works appurtenant thereto in the St. Lawrence river, so far as these works will be in American territory, and is therefore in a position to utilize the fall in the St. Lawrence river above mentioned.

By co-operation, in developing the power of the Long Sault, these companies will be able to supply in the adjacent territory a large amount of power and only by such co-operation can the full potentiality of the

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*This is an *ex parte* statement by J. W. Rickey, Chief Engineer of the Long Sault Development Company, the applicants, for permission to dam the Long Sault.

river be made available. Such development is in conformity with the fundamental principles of the conservation of natural resources.

A general outline of the plan is as follows:

Map Showing General Location of Proposed Works

The map* accompanying this description shows Long Sault, Sheek and Barnhart islands, the Cornwall canal, and the situation of the International boundary with respect to the main channel on the St. Lawrence river. This main channel is in international waters on the north side of Long Sault island; but, a short distance below the rapids which are principally between Long Sault and Sheek islands, it lies south of Barnhart island and entirely within American territory. About 95 per cent. of the volume of water in the St. Lawrence river flows in this main channel south of Barnhart island; the other 5 per cent. flows through Little river and through the Cornwall canal. Little river forms the International channel between Barnhart and Sheek islands. The location of the proposed dams, power-houses, canals and new lock is also shown.

Dams and Controlling Works

A dam, for convenience called the "Upper dam," is proposed between the western end of Barnhart island and the eastern end of Long Sault island; at each end of this dam next to the shores, there will be a number of large sluice gates, the combined discharge of which will be about 100,000 second-feet, or 40 per cent. of the average flow of water in the river. Another dam, called the "Lower dam," is proposed between the easterly end of Barnhart island and the Canadian shore; it will lie on both sides of the International boundary. It is proposed to construct both dams of solid concrete masonry and of the gravity type.

In addition to the sluice gates at the Upper dam there will be constructed at each of the power-houses a number of large sluice gates to control the water level above the dams. These gates will be from 35 to 50 feet wide with about 15 feet of water on the sills; they will be so constructed that they can be operated throughout the entire year.

Power-Houses and Lock

At the north-easterly end of the Lower dam the St. Lawrence Power Co., Limited, proposes to construct a large power-house, between the dam and the Canadian shore near lock 20. This power-house will be

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*A map based on the Admiralty and U.S. Engineers' charts accompanies this report. Special information respecting ice jams and the proposed works of the Long Sault Co. is shown in red.

entirely in Canadian territory, and will be large enough to utilize all of the water that will be made available at this point by the construction of the dams.

The Long Sault Development Co., proposes to construct a power-house and lock across the South Sault channel, between the foot of Long Sault island and the main shore, The use of this lock will save approximately 4½ hours time on each round trip of the boats which now use the Cornwall canal.

At the eastern end of Barnhart island it is proposed to construct one, or possibly two, power-houses, and to excavate a head-race leading from the forebay immediately above the Lower dam to these power-houses.

Miscellaneous Construction

The width of Little River channel will be increased to about 1,000 feet to provide a straight, wide and deep channel for conveying water to the power-houses near the Lower dam.

Earthen dykes will be constructed on the south side of the Cornwall canal, between locks 20 and 21, as may be required.

All changes to locks 20 and 21 made necessary by the construction of the proposed dams will be made free of cost to the Government.

Government Approval and Inspection

It is proposed to have the Engineering Department of both the Canadian and United States Governments approve the plans and, if desired, inspect the construction of the works that are to be built in their respective countries.

Cornwall Canal Conditions

The Cornwall canal is 11½ miles in length, of which over 5 miles are formed by earth embankments; between locks 20 and 21 there are over 2½ miles of these embankments which, in places, are subjected to over 35 feet head of water. When the proposed dams are built and the water in the river above them is raised to the proposed level, the present unbalanced pressure on the canal banks, between locks 20 and 21, will be practically eliminated, and all danger of a washout in this section of the canal will be removed. Below lock 20, the conditions will remain unchanged. The construction of the proposed works will reduce the present risk of a washout in the entire canal at least 50 per cent.; this result could only be obtained by the expenditure of many hundred thousand dollars by the Canadian Government.

The break in the canal bank, near lock 18, which occurred June 23, 1908, blocked all navigation in the Cornwall canal for 17 days. Had the South Sault lock been in operation at that time, no delay whatever

would have been caused by this washout, since all boats could have used the South Sault lock pending the repairs to the canal bank.

Scenic Beauty of the River to be Preserved

The scenic beauty of the river above lock 21 will not be affected. Below the dams, the river scenery will remain practically unaltered. The only scenic change will be the replacement of the present rapids by long overflow dams; the water will pass over the crests of these dams in two unbroken sheets with a combined length of one and one-half mile, and a height of approximately forty feet, nearly one-fourth that of Niagara Falls, a sight equal in grandeur to that of the Long Sault and one which would be unique in all the world.*

Under the present conditions the Long Sault is seen by tourists during the short summer season of about four months, and then only for a very few minutes as they pass rapidly in a boat. Under the proposed conditions the scenery adjacent to the dams may be enjoyed by tourists throughout the year.

Effect of Proposed Works on Transportation Companies and the General Public

The Long Sault is navigated by a single line of passenger boats; these boats make a daily trip down-stream during the summer tourists' season, June to September, inclusive. No rafts or freight steamers use the main channel on the north side of the eastern end of Long Sault island, and no boats whatever can go up this channel. At a public hearing in Montreal November 6th, 1907, objection was raised to the construction of the proposed dams on the ground that the obliteration of these rapids would greatly decrease the number of tourist passengers.

The construction of the proposed dams will afford the opportunity for tourists to pass through the highest lift masonry lock in the world and to see the two longest spillway dams that have ever been built, with water several feet deep passing over the crest and falling about forty feet. Such attractions will more than offset a trip through the Long Sault, which is generally conceded to be less picturesque and thrilling than the Coteau rapids, the Cedars, the Split Rock, the Cascades and Lachine rapids, which are successively passed between this point and Montreal.

Passenger steamers will meet a delay of only about 30 minutes by using the South Sault lock as compared to shooting the Long Sault. On the west-bound trip they will save at least two hours time as com-

* With the Long Sault Company's plant in full operation, and passing practically all the water through its turbines, the amount flowing over its dams would be a negligible quantity.—Ed.

pared to passage through the Cornwall canal, so that on a round trip they will save about 1½ hour's time under the proposed conditions.

Freight steamers will be able to save at least 4½ hour's time on each round trip by using the South Sault lock.

The power from the proposed works will be used principally by factories and industries yet to be established within the radius of transmission of electricity from the power-houses. Raw material will be delivered to the factories from distant sources of supply and the finished products will be sent to the world's markets. The construction of the proposed works will greatly increase the revenue of the boat- and rail-transportation companies.

New industries and factories, contingent upon the development of the Long Sault, will give employment to thousands of persons and in one way or another all communities, using power from the proposed works, as well as the general public, will be substantially benefitted thereby.

Contour Surveys Along the River

The engineers of the two Companies have completed accurate surveys of the entire river from the eastern end of Barnhart island to Waddington, a distance of about 23 miles. These surveys show all the contours, at 2½ feet intervals, also the property lines on the islands and the main shores, to a point above Croil island; between this latter point and Waddington the contours and property lines were surveyed to elevation 215, sea-level datum. From these maps can be determined all questions that will be involved when the river is raised to the proposed level.

The St. Lawrence Power Co., Limited, has acquired much land and many riparian rights that will be affected by the proposed changes, and negotiations are under way for securing the remainder.

The Long Sault Development Co., on the American side, has acquired practically all of Barnhart island and the eastern half of Long Sault island together with riparian rights around the western end of the island, also nearly 2,000 acres of land on the main shore, extending from a point opposite the eastern end of Barnhart island, up-stream to the Massena canal, a distance of about 8 miles. Both companies are acquiring land on their respective sides of the river to elevation 215, sea level datum, which will be well above the future river level; they are also securing riparian rights along the streams that flow into the St. Lawrence river, where there is any possibility of riparian damage being caused.

Improvement in Ice Conditions at Cornwall

The greater part of the frazil ice in the section of the river above Cornwall is formed in the swift open stretches of water above the Long Sault and in the rapids themselves. The construction of the proposed dams will reduce the velocity of the river above them; the Long Sault will be entirely obliterated and there will be a great reduction in the amount of frazil ice that will be formed.

Under existing conditions the enormous masses of frazil ice that are formed in and above the rapids, pass down stream to the quiet water at the head of lake St. Francis; there they form hanging dams on the under side of the sheet ice on the lake. Every winter these hanging dams create a flood from backwater that rises from 15 to 30 feet above the normal summer level of the water in the river endangering the town of Cornwall. In the year 1887 the backwater extended as far as Fifth street, so that practically two-thirds of the town was flooded.

The danger of winter flood and backwater at Cornwall will not be entirely removed by the proposed dams, but the danger arising from the annual ice jam will be very much lessened, a point of vital importance to the people of Cornwall.

Improvement in Ice Conditions Above the Dams

In previous years, notably 1887 and 1905, large ice jams formed at critical points in the river channel opposite Farran Point and also on the south side of Croil island. The backwater caused by these jams extended up-stream as far as Morrisburg.

Careful surveys of the high water marks of the worst flood on record, that of February, 1887, between Cornwall and Morrisburg, show conclusively the following:

The main channel of the river, from the lower end of Croil island to the upper end of Barnhart island never becomes congested with ice, even when the backwater below the rapids is raised to practically the same level as that proposed above the dams. Below the Long Sault and above Croil island the jams frequently block the entire channel, from shore to shore.

The floods at Morrisburg are caused principally by the ice jams in the vicinity of Weaver point. The following table shows the backwater rise, in February, 1887, above the normal summer level, the river discharge being approximately 250,000 second-feet in both cases.

Place in Main Channel	Normal surface (Sea-level datum)	Flood level February, 1887	Backwater Rise
Opposite lock 18	El. 156·4	El. 185·4	29·0 ft.
Opposite eastern end Barnhart island	159·2	190·2	31·0 "
Opposite middle Barnhart island	164.7	194·2	29·5 "
Opposite western end Barnhart island	172·9	194·2	21·3 "
At proposed upper dam site	182·0	200·0	18·0 "
Opposite entrance to Cornwall canal	200·1	204·1	4·0 "
One mile below western end Long Sault island	203·0	204·4	1·4 "
Opposite western and Long Sault island	204·8	206·2	1·4 "
Opposite western end Croil island	206·1	209·7	3·6 "
One mile east of Weaver point	208·0	214·3	6·3 "
Opposite Weaver point	208·3	224·7	16·4 "
Opposite Morrisburg	213·5	225·5	12·0 "

The ice jams above Long Sault island are generally formed artificially by the inhabitants, and can be prevented. Those of natural formation can be broken up.

The construction of the proposed dams will improve ice conditions above them and materially lessen the risk of flood at Morrisburg.

SUMMARY

I. Advantages to the General Public

(*a*) The construction of these works will afford abundant, reliable and cheap power to all districts within the radius of transmission of electricity from the power-houses.

(*b*) The furnishing of cheap power will create many new industries and will be of great advantage to those already established.

(*c*) The construction of the proposed dams and power-houses will require the expenditure of many millions of dollars, which will be distributed among the transportation companies, manufacturers, tradesmen and workmen. It is impossible to estimate the amount which will be expended directly or indirectly consequent upon the utilization of this power, but the amount required for the construction of the factories, installation of transmission lines, etc., etc., will run into many more millions of dollars.

(*d*) The power from the entire development will be used almost exclusively for manufacturing purposes and the products must be

distributed by boat or rail; this will mean increased revenue to the transportation companies for all future time.

II. Improvement of Navigation

(*a*) Navigation will be very much improved. The present practically impassable rapids will be eliminated and in their place will be a broad and safe stream. The velocity of the current in the Farran Point and the Big Sny channels will be substantially lessened.

(*b*) The South Sault lock will duplicate the means now afforded by the Cornwall canal for navigation past the Long Sault, and will postpone the time when the Cornwall canal must be enlarged at great expense to the Canadian Government.

(*c*) The duplication of navigation facilities past the Long Sault will insure shipping interests against delay due to failure or accident in either the Cornwall canal or the South Sault lock.

(*d*) The construction of these works will enable boats passing the Long Sault to make a round trip in approximately 4½ hours less time than at present.

(*e*) The South Sault lock will be operated seven days per week during the navigation season, and like the Cornwall canal will be toll free.

III. Improvement in Ice Conditions

(*a*) Ice conditions below the dams will be much improved, thus reducing the danger from the annual ice gorges and floods at Cornwall.

(*b*) The river above the dams will be kept free from ice jams so that a repetition of the floods of 1887 and 1905 will not occur again.

IV. Cornwall Canal Conditions

(*a*) The proposed development will be made, preserving the integrity and utility of the Cornwall canal.

(*b*) The proposed development is so planned that traffic in the Cornwall canal will not be affected by the development in any way whatsoever. The Cornwall canal will remain unchanged and will be open to traffic both during the construction period and forever thereafter.

(*c*) When the water above the dams is raised to the proposed level, all danger of a washout of canal banks between locks 20 and 21 will be entirely and permanently removed.

Looking down South Sault, near Canal Intake, Showing Channel Blocked with Ice

APPENDIX IX (a)

BILL No. 115

As Originally Introduced to the House of Commons of Canada, to Incorporate the St. Lawrence Power Transmission Company, Limited, 2nd Session 11th Parliament. 9-10 Edward VII., 1909-10*

An Act to incorporate the St. Lawrence Power Transmission Company, Limited.

WHEREAS a petition has been presented praying that it be enacted as hereinafter set forth, and it is expedient to grant the prayer of the said petition: Therefore His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

1. Francis H. McGuigan, of the city of Toronto, in the province of Ontario, contractor; James W. Rickey, of the town of Massena, in the state of New York, hydraulic engineer; William Chalmers MacLaren, manufacturer and Robert Bowie, manufacturer, both of the town of Brockville; Isaac Phillip Wiser, of the town of Prescott, manufacturer; Peter Ernest Campbell, merchant and Archibald Denny, banker, both of the town of Cornwall, all in the province of Ontario, together with such persons as become shareholders in the company, are incorporated under the name of "The St. Lawrence Power Transmission Company, Limited," hereinafter called "the Company."

2. The works authorized by this Act are declared to be for the general advantage of Canada.

3. The persons named in section 1 of this Act are constituted the first or provisional directors of the Company.

4. The capital stock of the Company shall be two hundred and fifty thousand dollars, divided into shares of one hundred dollars each.

5. The head office of the Company shall be in the town of Cornwall, in the province of Ontario, or at such other place as is from time to time determined by by-law of the Company.

6. The Company may purchase, lease or otherwise acquire lands and water-powers, and may construct, maintain, operate, use and

* After the Bill had been radically amended as a result of protests made by the Commission of Conservation, and Canadian marine and other interests, it was passed in the form set forth in Appendix IX(b), page 117.

manage works, machinery and plant for the generation, storage, transmission and distribution of pneumatic, electric, hydraulic and other power or energy, and may acquire by lease, purchase or otherwise electricity, electric, pneumatic, hydraulic or other current, power or force, and may store, use, supply, furnish, distribute, sell, lease, contract for or otherwise dispose thereof as well as electricity, current, power or force produced by the Company, for all or any of the purposes of light, heat or power or any other purpose for which electricity or electric or other power, current or energy can be used.

7. The Company may construct, maintain and operate lines of wires, cables, poles, tunnels, trenches, conduits and other works in the manner and to the extent required for the purposes of the Company, and may conduct, store, buy, sell, contract for and supply electric and other power, and may, with such lines of wires, cables, poles, tunnels, trenches, conduits and motors or other conductors or devices, conduct, convey, furnish or receive such electricity or other power or energy to or from any other company or person at any place through, over, along or across any public highway, bridge, viaduct, railway or watercourse or over or under any waters.

8. The Company may acquire and utilize water-power and steam-power for the purpose of compressing air or generating electricity, and may contract for, sell, dispose of and distribute the same either as water-power or other power, or may convert it into electricity or other force for any purpose for which electricity or other power can be used.

9. The Company may also, for the purpose of enabling it to furnish and guarantee continuous power for the use proposed to be served by the Company, import electricity or other power or energy from the United States, and may export electricity or other power to the United States.

10. The Company may construct or acquire by lease, purchase or otherwise, and operate in connection with the works, lines and business of the Company and for the purposes thereof, lines of telegraph or telephone or other works and means of communication.

11. The Company may aid, by way of bonus, loan, guarantee or otherwise, any industry or enterprise using or agreeing to use power supplied by the Company or supplying or agreeing to supply power to the Company, and may acquire stock in any corporation carrying on or having power to carry on any such industry or enterprise, and the bonds, debentures or other securities or obligations of any such corporation, and may act as agent or manager of any such industry, enterprise or corporation.

12. The Company may sell, lease or otherwise dispose of its assets or property.

13. The Company may enter into, perform and carry out any agreement with any power company authorized to do, perform or exercise any of the powers conferred upon the Company for the purchase by and sale and transfer to the Company of the whole or any part of the rights, powers, franchises, assets, property, business and undertakings of such other company, and for the assumption and payment by the Company of the whole or parts of the contracts, obligations and liabilities of such other company.

14. The Company may within the counties of Leeds, Grenville, Dundas, Stormont and Glengarry in the province of Ontario, and in the counties of Soulanges, Vaudreuil and Jacques Cartier, and the city of Montreal in the province of Quebec, enter upon any private property, and survey, set off, take and acquire such parts thereof as are necessary for any of the works or undertakings of the Company or for the lines, wires, cables, poles, tunnels, trenches or conduits of the Company, and may enter upon any lands adjacent to such lines or conduits and fell any trees or the limbs thereof or other obstructions necessary to guard the safety of such lines or conduits, and in the case of disagreement between the Company and any owner or occupier of lands which the Company may take or enter upon for any of the purposes aforesaid or in respect of any damages done thereto by constructing the said works, undertakings, lines, cables, poles, tunnels, trenches or conduits upon the same or removing obstructions therefrom, the provisions of *The Railway Act* applicable thereto shall apply.

15. The Company may take and make surveys and levels of the lands and properties upon, through or under which the works of the Company are to be erected, passed or operated, together with the map or plan thereof and of the course and direction of the said works and of the lands and properties intended to be taken or to be passed through or under so far as then ascertained, and also the book of reference for the works, and deposit them as required by *The Railway Act* with respect to plans and surveys by sections or portions less than the whole of the said works and of such parts thereof as the Company sees fit, and upon such deposit as aforesaid of the map or plan and book of reference of any and each of such sections or portions of the said works all the sections of *The Railway Act* applicable thereto shall apply to each of such sections or portions of the said works as fully and effectually as if the said surveys and levels had been taken and made of the lands and properties upon, through or under which the whole of the said works are or were to be erected or passed, together with the map or plan of the whole thereof, as fully as if the book of reference for the whole of the said works had been taken, made, examined, certified and deposited according to the said sections of *The Railway Act.*

16. The directors may from time to time issue bonds of the Company for the purpose of raising money for prosecuting the said undertaking, which bonds shall be a charge upon the works, franchise, plant and undertaking of the Company, and shall be payable at such time and places and be sold at such price as the directors determine and the Company may mortgage or pledge any such bonds for advances of money to be made thereon.

17. The operations of the Company may be carried on throughout Canada.

18. Section 151 and sections 172 to 220, both inclusive, of *The Railway Act* shall apply to the Company and its undertakings in so far as the said sections are not inconsistent with the provisions of this Act, and subject to the following:

(*a*) Wherever in the said sections of *The Railway Act* the word "company" occurs it shall mean the Company hereby incorporated.

(*b*) Wherever in the said sections of *The Railway Act* the word "railway" occurs it shall, unless the context otherwise requires, and in so far as it applies to the provisions of this Act, mean the lands, works, conduits, cables or other works authorized by this Act to be constructed or acquired.

(*c*) Wherever in the said sections of *The Railway Act* the word "land" occurs it shall include any land, property, privilege or easement required by the Company for carrying on and constructing the works authorized by this Act, or any portion thereof, without the necessity of acquiring a title in fee simple thereto.

19. Sections 127, 136, 137, 141 of Part II of *The Companies Act* shall not apply to the Company.

APPENDIX IX (b)

ACT OF INCORPORATION

OF THE ST. LAWRENCE POWER TRANSMISSION COMPANY, AS FINALLY PASSED BY THE HOUSE OF COMMONS OF CANADA, 9-10 EDWARD VII. CHAP. 166. ASSENTED TO 4TH MAY, 1910

An Act to Incorporate the St. Lawrence Power Transmission Company, Limited

WHEREAS a petition has been presented praying that it be enacted as hereinafter set forth, and it is expedient to grant the prayer of the said petition: Therefore His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

1. Francis H. McGuigan, of the city of Toronto, in the province of Ontario, contractor; James W. Rickey, of the town of Massena, in the state of New York, hydraulic engineer; William Chalmers MacLaren, manufacturer and Robert Bowie, manufacturer, both of the town of Brockville; Isaac Phillip Wiser, of the town of Prescott, manufacturer; Peter Ernest Campbell, merchant and Archibald Denny, banker, both of the town of Cornwall, all in the province of Ontario, together with such persons as become shareholders in the company, are incorporated under the name of "The St. Lawrence Power Transmission Company, Limited," hereinafter called "the Company."

2. The persons named in section 1 of this Act are constituted the first or provisional directors of the Company.

3. The capital stock of the Company shall be two hundred and fifty thousand dollars, divided into shares of one hundred dollars each.

4. The head office of the Company shall be in the town of Cornwall, in the province of Ontario, or at such other place in Canada as is from time to time determined by by-law of the Company.

5. The Company may,—

(*a*) construct, maintain, operate, use and manage conduits, tunnels, transmission lines, structures, buildings, machinery, plant, appliances, instruments and devices, and erect and maintain poles and towers, and lay and maintain pipes, cables, wires or other conductors and connect them with similar lines in other provinces and with similar lines in the United States for the purpose of importation into Canada only;

(*b*) acquire by purchase or lease electricity and electric, pneumatic or other current, power or force, and may supply, distribute, sell, lease, contract for or otherwise dispose thereof for the purposes of light, heat or power or any other purpose for which electricity or electric or other power, current or energy can be used;

(*c*) acquire such lands, easements and privileges as are necessary for the purposes of its undertaking.

2. In case of any dispute or difference as to the price to be charged for power or electrical or other energy for any of the purposes in this Act mentioned, or as to the methods of distribution thereof, or as to the time within which it shall be furnished, or as to the quantity to be furnished, or as to the conditions upon which it shall be furnished for use, such dispute or difference shall be settled by the Board of Railway Commissioners for Canada on the application of any user of or applicant for power, or electrical or other energy transmitted or produced by the Company, or upon the application of the Company. The said Board of Railway Commissioners for Canada, on the application of any person or municipality, or on the application of the Government of Canada, or of the Government of the province of Ontario, or of the Government of the province of Quebec, shall fix the price from time to time for periods not to extend over five years, at which the Company may purchase electricity and electric, pneumatic or other current, power or force, and shall fix the prices from time to time for periods not to extend over five years at which the St. Lawrence Power Company incorporated by Chapter one hundred and eleven of the statutes of 1901, shall sell or lease such electricity and electric, pneumatic or other current, power or force to the Company.

3. Section 247 of *The Railway Act* shall apply to the works and undertaking of the Company.

6. The Company may construct or acquire by lease, purchase or otherwise, and operate in connection with the works, lines and business of the Company and for the purposes thereof, lines of telegraph or telephone or other works and means of communication.

7. Except as in this Act otherwise expressly provided, the provisions of *The Electricity Inspection Act*, 1907, shall apply to the Company and its undertaking.

8. The Directors may from time to time issue bonds of the Company for the purpose of raising money for prosecuting the said undertaking, which bonds shall be a charge upon the works, franchise, plant and undertaking of the Company, and shall be payable at such time and places, and be sold at such price as the Directors determine, and the Company may mortgage or pledge any such bonds for advances of money to be made thereon.

9. The powers conferred upon the Company by this Act shall not be exercisable until the Company has first submitted to the Governor in Council plans of such works, and has received his assent thereto.

10. *The Railway Act*, so far as applicable, and when not inconsistent with this Act, shall apply to the Company and its undertaking.

(2.) Wherever in *The Railway Act* the word "company" occurs, it shall include the Company hereby incorporated.

(3.) Wherever in *The Railway Act* the word "railway" occurs it shall, unless the context otherwise requires, in so far as it applies to this Act or to the Company, mean the works authorized by this Act to be constructed.

(4.) The expropriation powers hereby conferred upon the Company shall only be exercised in the counties of Frontenac, Leeds, Grenville, Dundas, Stormont and Glengarry, and the city of Kingston, in the province of Ontario, and in the counties of Soulanges, Vaudreuil and Jacques Cartier, and the city of Montreal, in the province of Quebec, and for the purpose of its transmission line only.

(5.) In the event of the Company exercising the rights of expropriation hereby given for the purpose of acquiring land for its right of way such land must be acquired in fee simple.

11. Nothing in this Act shall be construed to empower the Company to export electricity or electric or other power to the United States.

12. The Governor in Council shall not give his approval to the construction of any further canals, watercourses, raceways, dams, wing dams, sluices or other works on the river St. Lawrence by the St. Lawrence Power Company, under the provisions of chapter one hundred and eleven of the statutes of 1901, or otherwise, nor agree to or approve of any terms or conditions respecting the diversion of water or power from Canada, the consideration and rate to be paid therefor, the location of all dams and generating plant, the reservation of power for use in Canada, the safeguarding of Canadian canals, adjacent lands and navigation, the procuring of consent thereto from the British Government under the Ashburton treaty or other treaty, unless and until the plans, specifications, and all terms and conditions shall have been first submitted to and approved by Parliament.

13. Nothing in this Act shall be deemed to constitute an approval by Parliament of any future development of water-power by erecting a dam in or across the St. Lawrence river under the Chapter one hundred and eleven of the statutes of 1901, intituled "An Act to incorporate the St. Lawrence Power Company," or otherwise; nor shall the Company hereby incorporated be authorized to transmit power generated by the St. Lawrence Power Company other than the power

generated by and in connection with the works already constructed by the said St. Lawrence Power Company.

14. The construction of the works of the Company shall be commenced within one year and completed within three years after the date of the proclamation of the Governor in Council bringing this Act into force, and if the said works are not so commenced and completed the powers hereby granted shall cease as respects so much of the said works as then remains uncompleted.

15. Sections 136, 137 and 141 of Part II. of *The Companies Act* shall not apply to the Company.

16. This Act shall come into force on a day to be named by proclamation of the Governor in Council.

APPENDIX X

ACT OF INCORPORATION

OF THE ST. LAWRENCE POWER COMPANY. 1 EDWARD VII. CHAP. 111. ASSENTED TO BY THE HOUSE OF COMMONS OF CANADA, 23RD MAY, 1901

An Act to Incorporate the St. Lawrence Power Company

WHEREAS a petition has been presented praying that it be enacted as hereinafter set forth, and it is expedient to grant the prayer of the said petition: Therefore His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

1. Michael Patrick Davis, Duncan Byron McTavish, D'Arcy Scott, Robert J. Devlin and William Hepburn Curle, all of the city of Ottawa, in the county of Carleton, and province of Ontario, together with such persons as become shareholders in the company, are incorporated under the name of the "St. Lawrence Power Company," hereinafter called "the Company."

2. The persons named in section 1 of this Act are constituted the first or provisional directors of the Company, a majority of whom shall form a quorum; and they may forthwith open stock books and procure subscriptions of stock for the undertaking, and receive payments on account of stock subscribed, and carry on the business of the Company.

3. The capital stock of the Company shall be one million five hundred thousand dollars, divided into shares of one hundred dollars each, and may be called up by the directors from time to time as they deem necessary, but no one call shall exceed ten per cent. on the shares subscribed.

4. The directors may, with the approval of the Governor in Council, after the whole capital stock has been subscribed for, and fifty per cent. paid in thereon in cash, increase the amount of the capital stock from time to time to an amount not exceeding five million dollars, but the stock shall not be so increased until a resolution of the board of directors, authorizing such increase, has first been submitted to and approved of by a special general meeting of the shareholders duly called for that purpose, at which meeting shareholders representing at least two-thirds of the capital stock are present or represented by proxy.

5. The head office of the Company shall be in the city of Ottawa, in the province of Ontario, or such other place in Canada as the directors from time to time determine by by-law.

6. As soon as twenty-five per cent. of the capital stock has been subscribed and ten per cent. of the amount has been paid into some chartered bank in Canada, the provisional directors shall call a meeting of the shareholders of the Company at the city of Ottawa, at which meeting the shareholders present or represented by proxy, who have paid not less than ten per cent. on the amount of shares subscribed for by them, shall elect a board of five directors.

(2) Notice of such meeting shall be sufficiently given by mailing the same, postage prepaid, to the last known post-office address of each shareholder at least ten days previous to the date of such meeting.

7. The annual general meeting of the shareholders shall be held on the third Monday in September in each year, or on such other day in each year as the directors from time to time determine by by-law.

(2) At such meeting the shareholders present or represented by proxy who have paid all calls due on their shares, shall choose five persons to be directors of the Company, one or more of whom may be paid directors and a majority of whom shall be a quorum.

(3) Only shareholders eligible to vote may hold proxies at any meeting of the Company.

(4) Every director shall hold at least ten shares of the capital stock of the Company.

8. The Company may—

(*a*) manufacture, use, supply and dispose of electricity, water and gas, and water, hydraulic or other power, by means of wires, cables, pipes, conduits, machinery or other appliances; and construct, maintain and operate works for the production, sale and distribution thereof, and for the purposes aforesaid may construct, acquire, use, maintain and operate canals, water-courses, raceways and water-powers in or adjacent to the St. Lawrence river on the north side thereof at any points eastward from Hoople creek, in the county of Stormont, in the province of Ontario, to the eastern end of the Soulanges canal, and construct dams, wing-dams, sluices, conduits and buildings in connection therewith: Provided that the works hereby authorized shall not be commenced until the plans thereof have first been submitted to and approved of by the Governor in Council;

(*b*) acquire patent rights, letters patent of invention, processes, options, and other rights and privileges and again dispose thereof;

(*c*) manufacture, acquire and dispose of pulp-wood, pulp or the products thereof;

(*d*) manufacture and sell calcium carbide and all products produced in its manufacture; acetylene gas and other gases and products manufactured from calcium carbide;

(*e*) manufacture and deal in all minerals and the by-products thereof; construct furnaces, ovens and retorts for the reduction of such minerals;

(*f*) construct tramways, wharfs, docks, offices and all necessary buildings, and purchase, hire, build and repair vessels required for the business of the Company;

(*g*) construct, acquire and operate by electricity, steam or other motive power, vessels for the transportation of passengers and freight, or towing of barges or other vessels in the river St. Lawrence and the lakes, canals and rivers connected therewith.

9. The Company, for the purpose of constructing and maintaining its works, may, with the consent of the municipal council or other authority having jurisdiction over the same, enter on any highway, square or other public place, and as often as the Company thinks proper, may, with the like consent, break up and open any highway or public place, subject however to the following provisions:

(*a*) The Company shall not interfere with the public right of travel, or in any way obstruct the entrance to any door or gateway, or free access to any building;

(*b*) The Company shall not permit any wire to be less than twenty-two feet above such highway or public place;

(*c*) All poles shall be as nearly as possible straight and perpendicular, and shall, in cities, be painted, if so required by any by-law of the council;

(*d*) The Company shall not be entitled to damages on account of its poles or wires being cut by direction of the officer in charge of the fire brigade at any fire if, in the opinion of such officer, it is advisable that such poles or wires be cut;

(*e*) The Company shall not cut down or mutilate any shade, fruit or ornamental tree without the approval of the corporation of the municipality in which it is situate, and then only so far as it may be necessary;

(f) The opening up of streets for the erection of poles, or for carrying wires under ground, shall be subject to the direction and approval of such person as the municipal council appoints and shall be done in such manner as the said council directs; the council may also designate the places where such poles shall be erected; and such street, square or other public place shall, without any unnecessary delay, be restored, as far as possible, to its former condition, by and at the expense of the Company;

(*g*) In case efficient means are devised for carrying telegraph or telephone wires under ground, no Act of Parliament requiring the Company to adopt such means, and abrogating the right given by this section to carry lines on poles, shall be deemed an infringement of the privileges granted by this Act, and the Company shall not be entitled to damages therefor;

(*h*) Every person employed upon the work of erecting or repairing any line or instrument of the Company shall have conspicuously attached to his dress a badge on which are legibly inscribed the name of the Company and a number by which he can be readily identified;

(*i*) Nothing herein contained shall be deemed to authorize the Company to enter upon any private property for the purpose of erecting, maintaining or repairing any of its works, without the previous assent of the owner or occupant of the property for the time being;

(*j*) If, for the purpose of removing buildings, or in the exercise of the public right of travel, it is necessary that the said wires or poles be temporarily removed, by cutting or otherwise, the Company shall, at its own expense, upon reasonable notice in writing from any person requiring it, remove such wires and poles, and in default of the Company so doing, such person may remove such wires and poles at the expense of the Company. The said notice may be given either at any office of the Company, or to any agent or officer of the Company in the municipality wherein are the wires or poles required to be removed, or, in the case of a municipality wherein there is no such agent or officer, then, either at the head office, or to any agent or officer of the Company in the nearest or any adjoining municipality to that in which such wires or poles are;

(*k*) The Company shall be responsible for all damage which it causes to ornamental, shade, or fruit trees, and otherwise for all unnecessary damage which it causes in carrying out or maintaining any of its said works.

10. The directors, under the authority of a resolution of the shareholders passed at any special meeting called for the purpose, or at any annual meeting at which shareholders representing at least two-thirds in value of the issued capital stock of the Company are present or represented by proxy, may, from time to time at their discretion, borrow moneys for the purposes of the Company, and secure the repayment thereof in such manner and upon such terms and conditions as they see fit, and for this purpose may mortgage, pledge, hypothecate or charge the assets and property of the Company: Provided that the aggregate amount so borrowed shall not, at any time, be greater than seventy-five per cent. of the actual paid-up stock of the Company; but this limitation shall not apply to commercial paper discounted by the Company.

11. The Company may acquire and operate the works of any company having powers wholly or in part similar to the powers of the Company, and may acquire the capital stock, bonds, rights, franchises, powers, privileges or properties of any such company, and may enter into agreements for an amalgamation with such company, on such terms and conditions as are agreed upon, and subject to such restrictions as to the directors seem fit; provided that such agreement has been first approved by two-thirds of the votes at a special general meeting of the shareholders duly called for the purpose of considering it, at which meeting shareholders representing at least two-thirds in value of the stock are present or represented by proxy, and that such agreement has also received the sanction of the Governor in Council.

(2) Such sanction shall not be signified until after notice of the proposed application therefor has been published in the manner and for the time set forth in section 239 of *The Railway Act*, and also for a like period in one newspaper in each of the counties in which the works of the Company are situate, and in which a newspaper is published.

(3) A duplicate of the agreement referred to in subsection 1 of this section shall, within thirty days after its execution, be filed in the office of the Secretary of State of Canada, and notice thereof shall be given by the Company in *The Canada Gazette*, and the production of *The Canada Gazette* containing such notice shall be prima facie evidence of the requirements of this Act having been complied with.

12. The directors of the Company elected by the shareholders may make, and issue as paid-up stock, shares in the Company, whether subscribed for or not, and may allot and hand over such stock in payment for property, plant or materials, of any kind acquired by the Company; and such issue and allotment of stock shall be binding on the Company, and such stock shall not be assessable for calls.

13. The powers granted by this Act shall cease and be null and void unless works of the Company capable of producing at least one thousand horse-power are completed within three years from the passing of this Act, and notwithstanding anything contained in any Act of Parliament.

14. Lands actually required for the construction and maintenance of the power-canals, water-courses, raceways and reservoirs necessary for the utilization or operation of water-powers belonging to the Company may be taken and acquired by the Company; and to this end, after a plan of such lands has been approved of by the Governor in Council, all the provisions of *The Railway Act* which are applicable to such taking and acquisition shall, so far as they are applicable thereto, apply as if they were included in this Act; and all the provisions of *The Railway Act* which are applicable shall, in like manner apply to the ascertainment and the payment of the compensation for, or damages

to, lands arising out of such taking and acquisition, or the construction or maintenance of the works of the Company, or the exercise of any of the powers of the Company under this section.

(2) This section shall apply only to lands in or adjacent to the St. Lawrence river between the mouth of Hoople creek and the eastern end of Sheek island, and to land not more than two miles distant from the Soulanges canal and lying between the eastern end of the Soulanges canal and a point not more than five miles in a westerly direction from the eastern terminus of the Soulanges canal.

15. *The Companies Clauses Act* when not inconsistent with the provisions of this Act shall apply to the Company.

APPENDIX XI (a)

REPORTS

PRESENTED TO HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL, BY MESSRS. ANDERSON, BUTLER AND LAFLEUR, CHIEF ENGINEERS RESPECTIVELY, OF THE DEPARTMENTS OF MARINE AND FISHERIES, RAILWAYS AND CANALS AND PUBLIC WORKS. THESE ARE THE CONCLUSIONS OF THE DEPARTMENTAL BOARD APPOINTED TO REPORT ON THE PROPOSAL TO DAM THE LONG SAULT RAPIDS

FIRST REPORT OF GOVERNMENT ENGINEERS

Ottawa, December 15, 1908

Sir:

We have the honour to report in regard to the petition of the St. Lawrence Power Company, Limited, to His Excellency the Governor General in Council, for permission to erect certain dams on the St. Lawrence river as follows:

First: A rough computation shows that it is possible to develop, approximately, 800,000 effective horse-power by the proposed dams; and that the creation of such an enormous quantity of power would be of very great importance to the district in question, as experience has shown that in the proximity of such large developments of power, great industries are created; towns and cities grow up. The objections which arise, however, are somewhat serious. First: The plans as submitted, contemplate interfering with the present Cornwall canal; and this we take it, cannot be tolerated. The integrity of the Cornwall canal must be preserved, without any alteration whatever; and, consequently the plans submitted would have to be modified so as to preserve intact this most important navigation channel. It is true that the Company contemplates the building of a separate lock above lock 20 to enter into the proposed new level, but such a lock requires navigation to pass along parallel with an over-flow weir dam, which, necessarily, must take care of the great bulk of the discharge of the river; in consequence thereof, the side currents would be so great as to render navigation exceedingly dangerous. Furthermore, an accident to any of the dams would throw the whole system of navigation out of gear for a long time.

Second: The plans contemplate a single lift lock on the American side, in the south channel, to take the place of the Cornwall canal. The

channel from this proposed lock to the foot of Cornwall island has such a swift current, and is so crooked as to render such a route dangerous; and it is not, therefore, in our opinion, a suitably located lock, having regard to the difficulties named. It does not seem needful at this stage to point out a more suitable site where a lock might be had, and where difficulties of navigation would be lessened.

Third: The upper dam provided for in the proposed plans, running from the Long Sault island to the upper end of Barnhart island, is practically parallel with the thread of the stream, and is intended to be an over-flow weir, with ten Stoney sluices at each end of it. There can be no doubt whatever that this dam will, of necessity, have to take care of the regulation of the level of the river above it. The lower dam at the easterly end, which is in the form of the letter "A", connecting the mainland on the Ontario side with the lower end of Barnhart island, would not, in our opinion, be of material assistance for regulation.

Every advantage has been taken of natural channels for the purpose of providing an economical development of the power, practically closing up the entire Canadian channel by this means and throwing the whole of the discharge into the American channel on the south of Barnhart island, the water to the north of Barnhart island being thrown into a pool.

The discharge of the upper dam in conjunction with the Stoney sluices would be of such volume, and the cross current so great, as to make it risky for a steamer to attempt to pass parallel with this dam, through the channel south of Sheek island.

Fourth: The effect of ice and frazil on the up-stream end of the river is one upon which it would be most difficult to express any decided opinion. There is no doubt that frazil forms in the Galop rapids, and the Rapide Plat: and that a large mass of more or less broken ice floats down the river continuously. The channel in the vicinity of Brockville is usually kept open for the ferry; but after the dam in question has been built, a field of broad ice would be formed above its crest, and it will be difficult to say where the small cakes of ice, frazil and anchor ice would go, if it did not fill up the space above the dam. The report of the Montreal Flood Commission of 1889 states that on the 8th of April, two or three feet of board ice, and from ten to twenty-four of frazil were found; that between the Lachine rapids and Varennes, in March 1887, a distance of twenty miles, there were 99,216,000 cubic yards of field ice, and 252,601,000 cubic yards of frazil, and water amounting to 467,212,000 cubic yards, or a total of 819,029,000 cubic yards; which gives some little idea of the relative proportions.

The conditions for the creation of frazil were greater in the district just above described than in the one we are considering. Nevertheless, there is ample opportunity for the creation of great quantities of frazil

and broken fragments of solid ice at the points named, so that the upstream effect likely to be created, is something that no one could very well predict; but would, no doubt, be approximately, similar to that found by the Commission, with resulting damage at the foot of the Rapide Plat and the Galop rapids.

Fifth: The Richelieu and Ontario Navigation Company run a daily line of steamers from Kingston to Montreal, and do a fairly large tourist business, which we understand is increasing. One of the features of the trip is running the Long Sault rapids, which, of course, would be destroyed by the proposed dam. Aside from this, we question if a boat could make the trip from Kingston to Montreal in a day, provided she had to be locked through the Cornwall canal or the proposed lock on the American side. Strenuous objections have been raised by the interests in question against the project.

Sixth: The possible destruction of the proposed dam by natural forces, or by the malice of any evil-intentioned person; (an earthquake might be the means of destroying the dam) certainly, a very few pounds of dynamite in the hands of an intelligent man would be most disastrous. The volume of water which the dam could contain would be sufficiently great, if liberated in the form of a wave, to, at any rate, destroy the greater portion of the town of Cornwall—certainly the canal, or that portion of it below the dam—and without doubt, the means of flooding lake St. Francis and a large section of the land on the river bank protected by the Hungry Bay dyke; besides unquestionably imperilling the Soulanges canal, as well as the villages fronting the river between lake St. Francis and lake St. Louis. Whether the effect of such a sudden break would be taken care of in lake St. Francis and lake St. Louis, is a question. Experience had on a very much smaller scale would lead one to expect that the damage would be continued on through the lower portion of Montreal, with the possible destruction of the Lachine canal, as well.

Seventh: The plans show a very small percentage of development on the Canadian side: We should judge that over eighty per cent. (80%) is contemplated to be developed in the United States; and of course, this would be a very unfair distribution of the power in question. In any event, should the project receive consideration, considerable revision of the plans would have to be made, so as to secure a more equitable division of the power development.

Eighth: A vital point in connection with the whole scheme would be that all the plans of the dams, locks, etc., on the proposed works must be approved in advance by engineers responsible to Canada and to the United States, respectively, and upon which they must agree; the detail of the works in question should be passed upon by the joint approval of engineers from both countries. Whether this is a practical

thing to secure we are unable to say, but it is obvious that the interest of Canada is such that no portion of the work in question could be allowed to be gone on with unless it received a most strict examination and inspection by engineers acting for this country. No doubt, the United States authorities would take a similar attitude with regard to the question, although their interests are trivial compared with ours, on account of the fact that they have so little land on the St. Lawrence below the power in question.

Ninth: No private corporation should be permitted to have under its control the regulation of the height of water in such an important river as the St. Lawrence.

We are, Sir,
Your obedient servants,

(Signed) WM. P. ANDERSON
Chief Engineer, Dept. of Marine and Fisheries

(Signed) M. J. BUTLER
Chief Engineer, Dept. of Railways and Canals

(Signed) EUGENE D. LAFLEUR
Chief Engineer, Dept. of Public Works

APPENDIX XI (b)

SECOND REPORT OF GOVERNMENT ENGINEERS

Ottawa, January 12, 1910

Sir:

We have the honour to report in regard to the amended petition of the St. Lawrence Power Company Limited, to His Excellency, the Governor in Council, for permission to erect certain dams in the St. Lawrence river, as follows:

On December 15, 1908, we reported on the facts as contained in the application of the Company at that time. The objections found against the original plan have, in a large measure, been remedied by the amended proposition. The integrity of the Cornwall canal has been preserved. No detail plans have been submitted showing the style of dam proposed to be erected; and this, of course, will have to be done before the project could be allowed to be entered upon. An approximate computation of the horse-power capable of being developed at the site of the proposed dams, is about six hundred thousand. The creation of such an enormous quantity of power will be of the highest importance to the district in question. Experience has shown us that in the proximity of such a large development of power, great industries are created and that towns and cities grow up. We are convinced that the project is one worthy of the most serious consideration at the hands of the Government.

The plans contemplate the construction of a lock in the American channel, and the objections which were taken against the former proposition apply with equal force to the present one, viz.: the approach channel to the lock, as it now exists, is a tortuous one, with a swift current, and is not, in our opinion, a satisfactory channel. It is our opinion, however, that a single lock about one thousand feet long between hollow quoins, eighty-five feet wide, with twenty-five feet of water on the sill, should be built on the Canadian side: so as to duplicate the Cornwall canal. We believe that if this lock is constructed on satisfactory lines, it will, to a considerable extent, eliminate any objections the Richelieu & Ontario Navigation Company might reasonably have, in being interfered with in their descent of the Long Sault rapids. It is also necessary that there should be built a timber slide and all necessary piers and booms for the protection of the lumber industry and the free use of the navigation of the river for that purpose.

The location and position of the power-house and dam on the Canadian side would have to be adjusted, when the plans are worked out in detail. We have satisfied ourselves that the objections which we formulated, with regard to the possible danger in having such a large dam in a river like the St. Lawrence, are obviated by the amended plan.

The effect of the board ice and frazil, upon which we laid considerable stress in our former report, we are convinced need not be seriously considered, for the reason that the company is willing to enter into an undertaking to not permit board ice to form at the head of the dam. They are willing to supply ice breakers to prevent such a possibility.

The plans show a small percentage of development on the Canadian side, and the geographical conditions are such that it will be somewhat difficult to increase the power plant on the Canadian side to the full fifty per cent. which we feel should be preserved for the use of Canada. This difficulty, however, may be obviated by the Company undertaking to hold in readiness fifty per cent. of the total power developed in the river, available for Canadian consumption. No doubt, if the project goes through, and the working plans are submitted, a more equitable division of the power-plants can be worked out.

We desire to reiterate the necessity of a complete agreement on behalf of the Governments of Canada and the United States as to the supervision and control of the plans, specifications and every detail of the works in question. The subsequent operation, in so far as the level of the water in the river is concerned, and the regulation of the flow, should in like manner be under the joint supervision of an officer from both Governments.

A question has been propounded to us, as to what effect the construction of such dams as are proposed would likely have upon the elevation of the water in the harbour of Montreal. We agree that they would have no effect whatever.

It must be understood that the present report does not attempt to deal with the sites selected for the several dams, or power-houses, or other works connected with the scheme. All such matters are to be determined later should the general scheme be approved by the Government.

We are, Sir, your obedient servants,

(Sgd.) M. J. BUTLER
Chief Engineer, Dept. of Railways and Canals
(Sgd.) EUGENE D. LAFLEUR
Chief Engineer, Dept. of Public Works
(Sgd.) WM. P. ANDERSON
Chief Engineer, Dept. of Marine and Fisheries

APPENDIX XII

CERTIFICATE OF INCORPORATION

St. Lawrence River Power Company

WE, the undersigned, at least two-thirds of whom are citizens of the United States and one of us a resident of the state of New York, desiring to become a corporation under the laws of the state of New York, known as the Stock Corporation Law, and to take and to possess the property and franchises of a domestic stock corporation sold as hereinafter stated, do hereby make, acknowledge and file this certificate for that purpose and certify, as required by section 3 of said law, as follows:

I. That the property and franchises of the St. Lawrence Power Company of Massena, New York, a domestic corporation organized under and by virtue of Chapter 484 of the Laws of 1896 of the state of New York, entitled "An Act to incorporate the St. Lawrence Power Company of Massena, St. Lawrence county, New York," as supplemented by Chapter 542 of the laws of 1898 of the state of New York, entitled "An Act supplementary to an Act entitled 'An Act to incorporate the St. Lawrence Power Company, of Massena, St. Lawrence county, New York,'" were, on the 3rd day of July, 1902, sold under, and by virtue of a judgment or decree of the Circuit Court of the United States for the Northern District of New York, rendered in an action pending in said court between Commercial Trust Company of New Jersey and Morristown Trust Company, complainants, and the St. Lawrence Power Company of Massena, New York, The Standard Trust Company of New York and United States Mortgage and Trust Company, defendants, and dated, entered and filed in the clerk's office of the said Circuit Court of the United States in the city of Utica, state of New York, on the 13th day of May, 1902. That Mark T. Cox, one of the undersigned, purchased said property and franchises at such sale, and having, as he then verily believed, acquired title to the same in the manner prescribed by law, and having associated with himself the undersigned, Thomas A. Gillespie, Henry P. Davison, William J. Wilson and Samuel E. Potter, the undersigned did, on or about the eighteenth day of July, 1902, make and file in the office of the Secretary of State an instrument purporting to be a certificate of incorporation as provided in section 3 of said Stock Corporation Law, reference to which certificate, as the same is on file in the office

of the Secretary of State, is hereby made. That thereafter and on or about the 19th day of August, 1902, an order or decree was made in said above-entitled action and entered and filed in the office of said clerk of the Circuit Court of the United States for the Northern District of New York, vacating the sale of said property and franchises and vacating said judgment or decree dated the 13th day of May, 1902, by which order or decree made on or about the 19th day of August, 1902, it appeared that said Mark T. Cox, had not acquired title to said property and franchises in the manner prescribed by law, and having associated with himself the undersigned, Thomas A. Gillespie, Henry P. Davison, William J. Wilson and Samuel E. Potter, the undersigned did, on or about the eighteenth day of July, 1902, make and file in the office of the Secretary of State an instrument purporting to be a certificate of incorporation as provided in section 3 of said Stock Corporation Law, reference to which certificate, as the same is on file in the office of the Secretary of State, is hereby made. That thereafter, and on or about the 19th day of August, 1902, an order or decree was made in said above-entitled action and entered and filed in the office of said clerk of the Circuit Court of the United States for the Northern District of New York, vacating the sale of said property and franchises and vacating said judgment or decree dated the 13th day of May, 1902, by which order or decree made on or about the 19th day of August, 1902, it appeared that said Mark T. Cox, had not acquired title to said property and franchises in the manner prescribed by law. That, such title not having been so acquired, the filing of said above-mentioned instrument purporting to be a certificate of incorporation, was unauthorized by law and void. That thereafter and on the 6th day of November, 1902, said property and franchises were again duly sold under and by virtue of a judgment or decree rendered in said above-entitled action and entered in the office of the clerk of said court on the 18th day of September, 1902.

II. That the following is a brief description of the property thus sold:

One thousand seven hundred and ninety-nine and 70-100 (1799.70) acres of land, more or less, situated on the south shore of the St. Lawrence river, in the town of Massena, St. Lawrence county, New York, and extending to and across the Grasse river in said town and county, and more particularly described in said decree hereinbefore referred to, together with the canal constructed on, in or over said land or part thereof, from a point on the St. Lawrence river, at or near Dodge's creek to a point on the Grasse river at or near the said town of Massena, with all head-gates, dams, sluices, conduits, power-houses, machinery and appurtenances of every kind and nature, together with

all the rights of way for the said canal or works, and all lands acquired by the said St. Lawrence Power Company of Massena, New York, for use in connection with the said canal or appurtenant or adjoining thereto, and all machinery, fixtures, dredges and other tools, implements and movables of every kind acquired for use in connection with the operation of the canal and works of the said St. Lawrence Power Company of Massena, New York, together with all and singular the tenements, hereditaments and appurtenances belonging to the property, or in anywise thereto appertaining, and the reversions, remainders, tolls, incomes, rents, issues and profits thereof, and also all the estate, right, title, interest, property, possession, claim and demand whatsoever as well in law as in equity of the said St. Lawrence Power Company of Massena, New York, of, in and to the same, and any and every part thereof, with the appurtenances, together with all the rights, privileges and franchises, corporate, public or municipal, of said St. Lawrence Power Company of Massena, New York, pertaining thereto, and all contracts and leases made by the said St. Lawrence Power Company of Massena, New York, for power to be furnished by the St. Lawrence Power Company of Massena, New York.

III. That at such sale held on the 6th day of November, 1902, the undersigned, Mark T. Cox, became the purchaser of the property and franchises sold, has acquired the title thereto in the manner prescribed by law, and has associated with himself the following persons: Thomas A. Gillespie, Henry P. Davison, William J. Wilson and Samuel E. Potter.

IV. That the name of the new corporation intended to be formed by the filing of this certificate shall be The St. Lawrence River Power Company, and the place where its principal office is to be located is Massena, St. Lawrence county, New York.

V. That the maximum amount of its capital stock shall be seven million dollars ($7,000,000), and that the number of shares into which the same shall be divided is seventy thousand (70,000) shares of the par value of one hundred dollars ($100) each, of which three million five hundred thousand dollars ($3,500,000), or thirty-five thousand (35,000) shares, shall be common stock, and three million five hundred thousand dollars ($3,500,000), or thirty-five thousand (35,000) shares, shall be preferred stock. That the rights appertaining to each class of such stock shall be as herein specified, to wit: The preferred stock herein provided for shall be entitled to receive in each year out of the surplus net profits of the corporation a non-cumulative dividend at the rate of six per cent., as and when declared by the board of directors of the Company, before any dividend shall be set apart or paid upon the common stock. After said preferred stock shall have received a dividend of six per cent. for any year as above provided, the common stock shall

be entitled to a dividend for the same year, as and when declared by said board of directors, up to six per cent. before any further dividend for such year shall be declared or paid upon the preferred stock. All moneys appropriated to dividends in any year in excess of the dividends of six per cent. upon each class of capital stock as above provided shall be divided equally per share among the holders of the preferred and common stock. In case of the liquidation or dissolution of the corporation, holders of preferred stock shall be entitled to be paid in full the par value of their shares before any amount shall be paid to holders of common stock. Thereafter, holders of common stock shall be entitled to be paid in full the par value of their shares before any amount shall be further paid upon the preferred stock. The remaining assets and funds shall be divided equally per share among the holders of both classes of said capital stock.

VI. *That the number of directors who shall manage the affairs of the new corporation shall be five and the names and post-office addresses of the directors for the first year are as follows:

Thomas A. Gillespie....Massena, New York.
Mark T. Cox .....East Orange, New Jersey.
Henry P. Davison ....Englewood, New Jersey.
William J. Wilson .....40 Wall St., New York, N.Y.
Samuel E. Potter .....40 Wall St. New York N.Y.

IN WITNESS WHEREOF we, the undersigned, the said purchaser and his associates, have made this certificate in duplicate and have hereunto subscribed our names this 23rd day of December, 1902.

THOMAS A. GILLESPIE
MARK T. COX
HENRY P. DAVISON
WILLIAM J. WILSON
SAMUEL E. POTTER

STATE OF NEW YORK,
COUNTY OF NEW YORK, } ss:

On the 23rd day of December in the year nineteen hundred and two, before me personally came, Thomas A. Gillespie, Mark T. Cox, William J. Wilson, Samuel E. Potter and Henry P. Davison, to me known to be the individuals described in and who executed the foregoing certificate of incorporation, and severally acknowledged that they executed the same for the uses and purposes therein expressed.

Filed and Recorded Dec. 24, 1902 (Seal) THOMAS L. TEN EYCK
J. B. H. MONGIN NOTARY PUBLIC, No. 76,
Deputy Secretary of State NEW YORK COUNTY

*At a meeting of the directors of the Company held in New York city on the 19th of June, 1903, the number of the Company's directors was increased from five to seven.

APPENDIX XIII (a)

CERTIFICATE OF INCORPORATION

St. Lawrence Transmission Company

WE, the undersigned, all being persons of full age, and at least two-thirds being citizens of the United States, and one of us a resident of the state of New York, desiring to become a corporation for the purposes herein specified pursuant to the provisions of Article VI of the Transportation Corporations Law of the state of New York do hereby certify:

First. The name of the corporation is to be *St. Lawrence Transmission Company.*

Second. Its objects are to be to generate, manufacture, buy, sell, transmit, use, supply and deal in electricity for producing light, heat or power; to carry on the business of lighting by electricity or using it for heat or power in counties, cities, towns and villages within the state of New York, and the streets, avenues, public parks and places thereof; and public and private buildings therein; to make, purchase, sell, lease, acquire and dispose of all machines, instruments, apparatus and other equipments for such business, and to lay, erect and construct suitable wires or other conductors, with the necessary structures, poles, pipes and other fixtures and machinery for conducting, transmitting and distributing electricity, and to acquire, lease, own and dispose of real estate, rights of way, easements, and any other interests in real estate;

Also to purchase, acquire, hold and dispose of the stocks, bonds and other evidences of indebtedness of any corporation, domestic or foreign, and to issue in exchange therefor its stock, bonds or other obligations, or to guarantee the bonds or obligations of any other domestic corporation.

Third. The amount of its capital stock is to be twenty-five thousand dollars ($25,000).

Fourth. The term of its existence is to be fifty years.

Fifth. The number of shares of which the stock shall consist is 250 shares of the par value of one hundred dollars ($100) each.

Sixth. The number of directors is to be three.

Seventh. The names and places of residence of the directors who are to serve for the first year are as follows:

Thomas A. Gillespie, West Orange, New Jersey.
Mark T. Cox, East Orange, New Jersey.
William J. Wilson, 121 West 136th St., New York City.

Eighth. The names of the towns, villages, cities and counties in which the operations of the corporation are to be carried on are:

the towns of Massena, Louisville, Norfolk, Waddington, Lisbon, Brasher, Stockholm, Madrid, Potsdam, Canton, Oswegatchie, DeKalb, Depuyster, Hermon, Morristown, Macomb, Gouverneur, Edwards, Fowler, Hammond, Rossie, Fine, Clifton and Pitcairn, the villages of Massena, Waddington, Madrid, Norwood, Potsdam, Canton, Rensselaer Falls, Heuvelton, Richville, Hermon, Morristown, Gouverneur, Edwards and Talcville, and the city of Ogdensburg, all in the county of St. Lawrence, and the towns of Antwerp, Theresa, Alexandria, Philadelphia, Leroy, Parmelia and Watertown, and villages of Antwerp, Theresa, Redwood, Alexandria Bay and Philadelphia, and the city of Watertown, all in the county of Jefferson.

IN WITNESS WHEREOF we have made, signed, acknowledged and filed this certificate in duplicate this 16th day of November, 1904.

THOMAS A. GILLESPIE
MARK T. COX
W. J. WILSON

STATE OF NEW YORK,
COUNTY OF NEW YORK } ss.:

On this 16th day of November, 1904, before me personally came Thomas A. Gillespie, Mark T. Cox and William J. Wilson to me known to be the persons described in and who made and signed the foregoing certificate, and severally duly acknowledged to me that they made, signed and executed the same for the uses and purposes therein set forth.

ARTHUR W. CLEMENT
Notary Public, Kings County

Filed and Recorded Nov. 21, 1904

J. B. H. MONGIN
Deputy Secretary of State

APPENDIX XIII (b)

CERTIFICATE

GIVING CONSENT OF STOCKHOLDERS TO INCREASE THE NUMBER OF DIRECTORS OF THE ST. LAWRENCE TRANSMISSION COMPANY

WE, the undersigned, being all the stockholders of The St. Lawrence Transmission Company, a stock corporation organized and existing under the Laws of the state of New York, do hereby consent that the number of directors of said corporation be increased from three to seven, this written consent being made pursuant to the provisions of Article II, Section 21, of the Stock Corporation Law.

Dated, February 26th, 1907.

	No. of shares owned
The St. Lawrence River Power Co., per R. E. WITHERS, Treasurer	247
R. B. Mellon	1
Charles M. Hall	1
Arthur V. Davis	1
	250

STATE OF PENNSYLVANIA,
COUNTY OF WESTMORELAND. } ss:

G. R. Gibbons, being duly sworn, deposes and says: That he is the Secretary of St. Lawrence Transmission Company, the corporation mentioned in the annexed instrument; that he is the custodian of the stock book containing the names of the stockholders of said corporation; that The St. Lawrence River Power Co., Charles M. Hall, R. E. Withers, Jr., Treasurer, R. B. Mellon, Arthur V. Davis, the persons who have signed the annexed instrument, are all the stockholders of said corporation, and that they are the holders of the entire capital stock of said corporation issued and outstanding.

Sworn to before me this
26th day of February, 1907. } G. R. GIBBONS

(Seal) E. D. CREE,
Notary Public.

APPENDIX XIV

CERTIFICATE OF INCORPORATION

OF THE MASSENA ELECTRIC LIGHT AND POWER COMPANY

WE, the undersigned, all being persons of full age and all being citizens of the United States and residents of the state of New York, desiring to become a corporation for the purposes herein specified, pursuant to the provisions of the Transportation Corporations Law, Article VI, do hereby certify:

FIRST. The name of the corporation is to be "The Massena Electric Light and Power Company."

SECOND. Its objects are to be manufacturing and using electricity for producing light, heat and power, and in lighting streets, avenues, public parks and places, and public and private buildings of cities, villages and towns within this State, including the village and town of Massena in the county of St. Lawrence and state of New York and the adjoining country. The corporation shall also have power to purchase, acquire, hold and dispose of the stocks, bonds and other evidences of indebtedness of any corporation, domestic or foreign, and issue in exchange therefor its stock, bonds, or other obligations.

THIRD. The amount of its capital stock is to be Ten Thousand Dollars ($10,000).

FOURTH. The term of its existence is to be fifty (50) years.

FIFTH. The number of shares of which the capital stock shall consist is to be one hundred (100).

SIXTH. The number of its directors is to be five (5).

SEVENTH. The names and places of residence of the directors who are to serve for the first year are as follows:

Names	Places of Residence
Thomas H. Gillespie	526 Fifth Avenue, Borough of Manhattan, New York, N.Y.
Robert A. Johnston	35 West 25th Street, Borough of Manhattan, New York, N.Y.
Robert Swan	Massena, New York.
Edward M. Stothers	Port Richmond, Borough of Richmond, New York, N.Y.
Henry W. Merwin	50 Willow Street, Borough of Brooklyn, New York, N.Y.

EIGHTH. The name of the town and county in which the operations of the corporation are to be carried on, is the town of Massena and county of St. Lawrence.

In Witness Whereof, we have made, signed and acknowledged this certificate in duplicate this 26th day of January, 1899.

THOS. H. GILLESPIE
ROBERT A. JOHNSTON
ROBERT SWAN

State of New York,
County of New York. } ss:

On this 30th day of January, in the year one thousand eight hundred and ninety-nine, before me personally came Thomas H. Gillespie, Robert A. Johnston and Robert Swan, to me severally known to be the persons described in and who made and signed the foregoing certificate, and severally duly acknowledged to me that they had made, signed and executed the same for the uses and purposes therein set forth.

HOWARD HASBROUCK
Notary Public
N. Y. County

APPENDIX XV

CERTIFICATE OF INCORPORATION

New York and Ontario Power Company

WE, the undersigned, all being persons of full age and all being citizens of the United States, and residents of the state of New York, desiring to become a corporation for the purposes herein specified, pursuant to the Provisions of Article (6) six of the Transportation Corporations Law, of the state of New York, do hereby certify as follows, to wit:

First. The name of the corporation is to be "New York and Ontario Power Company."

Second: Its objects are to be manufacturing, using and transmitting electricity for producing light, heat or power and in lighting streets, avenues, public parks and places, and public and private buildings of cities, villages and towns within this State. The names of the towns, villages, cities and counties in which the operations of the corporation are to be carried on are as follows:

The villages of Malone, Tupper Lake and Saranac, in the county of Franklin, state of New York; the city of Plattsburgh in the county of Clinton, state of New York; the villages of Waddington, Madrid, Canton, Gouverneur, and Potsdam, in the county of St. Lawrence, state of New York; the city of Ogdensburg, in the county of St. Lawrence, state of New York; the city of Watertown in the county of Jefferson, state of New York; the villages of Adams and Carthage in the county of Jefferson, state of New York; the village of Booneville in the county of Oneida, state of New York; the cities of Rome and Utica, in the county of Oneida, state of New York; the city of Syracuse, in the county of Onondaga, state of New York; the city of Oswego, in the county of Oswego, state of New York.

Third. The amount of its capital stock is to be Two Million ($2,000,000.00) Dollars.

Fourth. The term of its existence is to be fifty (50) years.

Fifth. The number of shares of which the capital stock shall consist is to be Twenty Thousand Shares, of the par value of One Hundred ($100) Dollars, each.

Note.—At the meeting of the stockholders of the Company, held in New York January, 1908, the number of the Company's directors was increased from three to nine. In the application to make this increase in the number of directors, the stockholders were declared to be: D. J. Crichton, Jr., owner of one share; William F. Burt, owner of one share; G. H. Meldrum, owner of eighteen shares; J. Wesley Allison, owner of 1,480 shares.

SIXTH. The number of directors is to be three.

SEVENTH. The names and place of residence of the directors who are to serve for the first year are as follows, viz.:

David J. Grichton, Jr., 17 Elizabeth st. Ogdensburg, N.Y.
John W. Liston, 29 Fayette St., Ogdensburg, N.Y.
William F. Burt, 32 King St., Ogdensburg, N.Y.

EIGHTH. The principal business office of the corporation is to be located in the village of Waddington, St. Lawrence county, state of New York.

IN WITNESS WHEREOF, we have made, signed and acknowledged this certificate in duplicate this 11th day of April, 1906.

DAVID J. CRICHTON, JR.
JOHN W. LISTON
WILLIAM F. BURT

STATE OF NEW YORK
COUNTY OF ST. LAWRENCE } ss:

On this 11th, day of April 1906, before me personally came David J. Crichton, John W. Liston and William F. Burt, to me severally known to be the persons described in and who made and signed the foregoing certificate and severally and duly acknowledged to me that they had made, signed and executed the same for the uses and purposes therein set forth.

DANIEL M. SPRATT
Notary Public

Filed and Recorded April 18, 1906

JOHN F. O'BRIEN
Secretary of State

APPENDIX XVI

BILL H.R. 22207

PRESENTED IN THE UNITED STATES HOUSE OF REPRESENTATIVES 62ND CONGRESS, SECOND SESSION, MARCH 21ST, 1912, BY MR. B. G. HUMPHREYS OF MISSISSIPPI. A BILL TO REGULATE THE DEVELOPMENT OF HYDRO-ELECTRIC POWER IN THE NAVIGABLE WATERWAYS OF THE UNITED STATES

BE it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That hereafter, when permission is granted by Congress for the development of hydro-electric power by private enterprise with the surplus water at any lock and dam constructed by authority of Congress in any navigable water of the United States, the permit therefor, unless otherwise provided by Congress in the grant, shall be upon the terms and subject to the provisions of this Act.

SEC. 2. That no person, firm, or corporation, its successors or assigns, which may hereafter be authorized by the United States to develop hydro-electric power with the surplus water at any lock and dam constructed under the authority of Congress in any navigable water of the United States, shall be permitted to construct, maintain, own, or operate in connection with such dam any electrical power stations or other structures for the development of hydro-electric power for industrial or other purposes unless and until such person, firm, or corporation has received a permit therefor from the Secretary of War and shall have entered into a contract with the Secretary of War for the purposes of carrying out the stipulations and performances hereinafter set out, and shall have executed the bond required by this Act.

SEC. 3. That before any permit shall be issued to any person, firm, or corporation to develop hydro-electric power with the surplus water at any lock and dam constructed by authority of Congress in any navigable water of the United States the Secretary of War shall enter into contract with such person, firm, or corporation, and shall require bond with good and sufficient sureties, to be approved by him, conditioned upon the faithful performance of the stipulations of said contract, and in the event of the breach of any of the conditions thereof the full penalty of such bond shall thereby become forfeited to the United States, and proper proceedings to this end shall be instituted under the direction of the Attorney General upon request of the Secretary of War.

SEC. 4. That the contract herein required shall provide:

(*a*) That the grantee shall pay to the United States an annual rental of not less than one dollar per horse-power developed by the water so used.

(*b*) That the rate fixed for the annual rental shall continue in force for a period of ten years from a date to be fixed in the permit, which date shall be not later than the date upon which the grantee, under the terms of the permit, is to begin the development of hydro-electric power. That every ten years thereafter the annual rental shall be readjusted for the ensuing ten-year period, and if for any reason the Secretary of War and the grantee fail to agree upon a new rate for the ensuing ten-year period then, and in that event, the rate for such ensuing ten-year period shall be double the rate paid during the preceding ten-year period: *Provided*, That such rental rate shall not be unreasonable or confiscatory: *Provided further*, That if the courts hold the rate fixed by law to be unreasonable the court so holding may fix a reasonable rate and thereafter the rate so fixed shall be the annual rental for that ten-year period. That at the end of each ten-year period, and before the annual rate to be paid by the grantee has been fixed, the Secretary of War shall ascertain how much hydro-electric power can economically be developed, and the annual rental thereafter shall be based upon the amount of hydro-electric power so ascertained to be possible of economical development.

(*c*) That the Secretary of War shall have free access to all books of the grantee and all other records necessary for ascertaining and calculating the amount of power developed and possible of development by the grantee with the surplus water at such lock and dam, and the rates and prices at which such power is sold by the grantee.

(*d*) That the grantee, if a corporation, shall have incorporated in its charter (and if a person or firm other than a corporation, shall agree by contract to) a provision requiring it to abide by whatever reasonable regulation of the rates and of the service may be prescribed by the State wherein the power is developed and sold, or of any delegated agency of the State, whether that agency be a State commission, municipality, or other local governing body.

(*e*) That whenever the hydro-electric power produced with the surplus water at any lock and dam constructed by authority of Congress enters into interstate commerce the grantee shall agree to abide by whatever reasonable regulation of its rates and of its service may be prescribed by the Secretary of War.

(*f*) That no person, firm, or corporation, or any partner or stockholder in any firm or corporation, having a permit from the United States to develop hydro-electric power with the surplus water at any lock or dam in any navigable water of the United States, shall hold

stock in any other corporation which is engaged in or has power under its charter to engage in the development and sale of hydro-electric power, or shall have or hold any interest or property in any other way in the development of hydro-electric power for lease or sale at any other place.

(*g*) That no person, firm, or corporation under contract with the United States under the provisions of this Act shall enter into any agreement or understanding whatsoever with any other person, firm, or corporation which is engaged in the development, sale, transmission, or delivery of hydro-electric power as to the price to be charged for the power so developed, sold, transmitted, or delivered, or as to the terms or conditions of such development, sale, transmission, or delivery, or as to the amount of power to be developed, sold, transmitted, or delivered, or as to the number of hours its plant shall be operated, or as to the wages to be paid its operatives.

(*h*) That no person, firm, or corporation having a permit to develop hydro-electric power under the provisions of this Act shall sell or deliver any power so developed to any transmission company, or sell or deliver more than twenty-five per centum of the power developed to any one person, firm, or corporation without having first obtained the written consent of the Secretary of War.

(*i*) That the grantee shall furnish and deliver, free of cost to the United States, all power necessary for the lighting and operation of the locks and dams and for the lighting of the Government grounds and houses situated at such locks and dams.

(*j*) That the grantee shall have ingress and egress over the Government lands for the operation of its plants and works and the right to use the Government lands at or near the said works for the erection of power-houses and appurtenances in connection therewith, subject to the approval of and regulation by the Secretary of War.

(*k*) That in the exercise of the permission granted above, the grantee shall conform to such regulations as may be imposed by the Secretary of War for the protection of the navigation and property and other interests of the United States.

(*l*) That the United States shall not be liable to the grantee for the failure of the water-power from any cause whatsoever, and the work and improvements provided for shall be executed under the direction and with the approval of the Chief of Engineers and Secretary of War, the structures provided for being always subject to the provisions and requirements of this Act, and to such reasonable stipulations as may be imposed by Congress or by the Secretary of War for the protection of navigation and property and other interests of the United States.

(*m*) That nothing shall be done by the grantee in the use of the water at the dam or otherwise to interfere with or in any way impede or

retard the operations of the locks or the proper and complete navigation of the waterway at all times, nor in any way to interfere with the use or control of the same by the United States, or the maintenance of the water surface above the dam at the established minimum pool level, and the Secretary of War shall prescribe the regulations to govern the use of such water-power and the operations of the plants and force in connection therewith, so far as the same applies to the operation of the locks.

(*n*) That all repairs, renewals, and other necessary expenditures upon the works which the grantee shall be allowed to construct exclusively for the use of power generation shall be made by the grantee so that their condition shall at no time interfere with the interests of navigation; and whenever, in the opinion of the Secretary of War, the condition of said works endangers the interests of navigation he shall notify the grantee to repair same, and if the grantee shall not immediately comply with the demand of the Secretary of War to make such repairs he may enter upon such works and cause them to be repaired, and the expense therefor shall constitute a debt against the grantee, its successors or assigns, and a lien upon all its property.

(*o*) That at the expiration of the term for which the permit is granted all of the buildings, plant, and other property of the grantee constructed or used in the development of hydro-electric power under the provisions of this Act, and all other property and rights appurtenant thereto, shall, at the election of the Secretary of War, be transferred to the United States by the grantee upon payment by the United States of the reasonable value hereof.

(*p*) That the Secretary of War, whenever authorized by Congress so to do, may, at any time before the expiration of the term for which the permit shall have been issued, purchase the buildings, lines, plants, and other property of the grantee, at such dams, constructed or used by it in the development or transmission of hydro-electric power upon payment to the grantee of the reasonable going value thereof; *Provided*, That the value of the franchise or permit issued in pursuance of this Act shall not be reckoned as an element of value in determining the reasonable value of such buildings, lines, plant, and other property.

SEC. 5. That before issuing any permit under this Act the Secretary of War shall advertise in a public manner for bids, from all parties who may desire to receive a permit from the United States to develop hydro-electric power under this Act, and shall issue his permit to and enter into contract with the person, firm, or corporation making the best bid: *Provided*, That in his next annual report the Secretary of War shall publish the names of all bidders and the terms of all bids which were filed with him, and state the reasons which induced him to prefer the bid which was accepted.

SEC. 6. That no permit shall be issued by the Secretary of War for a longer period than fifty years.

SEC. 7. That the right to alter, amend, or repeal this Act is hereby expressly reserved, and the United States shall incur no liability for the alteration, amendment, or repeal thereof to the owner or owners or any other person interested in any dam or other structures which shall have been constructed in accordance with its provisions.

APPENDIX XVII (a)

BILL, S. 6795*

INTRODUCED IN THE SENATE OF THE UNITED STATES, 67TH CONGRESS, SECOND SESSION, MAY 13TH, 1912, BY MR. T. E. BURTON; BEING A BILL TO CONTROL THE DEVELOPMENT OF WATER-POWER AND THE USE OF PUBLIC LANDS IN RELATION THERETO, AND FOR OTHER PURPOSES

BE it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Attorney General, the Secretary of the Interior, and the Secretary of Agriculture shall, for the purposes herein provided, jointly formulate and publish uniform rules and regulations for the use of public lands. The head of the executive department having jurisdiction and control of lands to be occupied and used in accordance with the provisions of this Act and in conformity to the rules and regulations to be formulated by virtue of the provisions of this section is hereby authorized to lease any part of the public lands of the United States, reserved or unreserved, including national forests, national parks, national monuments, Indian, military, and other reservations, for a period not longer than fifty years, for the purpose of constructing thereon dams, canals, ditches, pipe lines, flumes, tunnels, conduits, reservoirs, power-plants, transmission lines and other works necessary or convenient to the development, generation, transmission, and utilization of hydro-electric power, which lease shall be irrevocable, but which shall become null and void upon breach of any of its terms. Each such lease shall be issued, as herein provided for, by the head of the executive department having control of the public lands to be used and upon a finding by him that such proposed lease is in harmony with the public interest and, if within any public forest, park, monument, or reservation, consistent with the purposes for which such forest, park, monument, or reservation was created.

SEC. 2. That the rules and regulations made in pursuance of this Act, and each lease granted thereunder, shall provide for prompt and continuous operation of the water-power; for a reasonable rate of rental and the terms of payment of the same; for enforcing compliance on the part of the lessee with all laws and regulations made by or under the authority of each State or Territory where the power is generated, sold,

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*An Amendment to this Bill is given in Appendix XVII(b) page 152.

or used; for negotiations for a renewal not more than ten nor less than five years prior to the expiration of the lease; for the valuation of and compensation for the physical properties upon the termination of the lease; for accurate reports to be made to the head of the department granting the lease, in such form and manner as he may prescribe, covering all items of cost, rates of service, and profits, together with all other information which he may require; for the control of capitalization; and such other conditions and requirements as may be necessary to fully protect the public interest.

SEC. 3. That in case the Government shall itself take over the properties of any of these lessees under the provisions of this Act or shall make or transfer its lease to other parties upon the expiration of the grant, it shall pay or require its new lessee to pay the reasonable valuation of all properties taken over or transferred, which shall include all works, equipment, structures, and property created or acquired, valuable and serviceable in the generation and transmission of electrical power, including the transmission system from generating plant to initial points of distribution, and which are dependent, in whole or in part, for their usefulness upon the continuance of the lease herein provided for, but shall not include or take into consideration any properties or values whatsoever not specifically mentioned herein. Such reasonable values shall be determined by mutual agreement between the head of the department making the lease and the lessees, and in case they can not agree, then by proceedings instituted in the United States circuit court for the condemnation of such properties. The rule for determining the value shall be the cost of replacing the structures necessary and convenient for the development and transmission of hydro-electric power by other structures capable of developing and transmitting the same amount of marketable power with equal efficiency.

SEC. 4. That any lands included in any proposed lease under the provisions of this Act shall, from the date of filing the application for such lease, be reserved from entry, location, or other disposal under the laws of the United States: *Provided*, That prospecting, entering, or patenting of lands under the mineral-land laws shall be allowed so far as the same will not impair, prejudice, or destroy the use of the lands for water-power development, generation, and utilization; it being the intent of this section that, in so far as possible, lands valuable for water-power and for mining shall be used for both purposes, the water-power, however, being the dominant use: *Provided further*, That upon the termination of any lease either by expiration or violation of its terms, unless the lands be released within reasonable time, the President of the United States may restore such lands to their prior status.

SEC. 5. That any lease issued under this Act shall not be assignable or transferable except upon the written consent of the head of the executive department having jurisdiction of the land.

SEC. 6. That in respect to every lease issued under authority of this Act, the Federal Government reserves the right to control the charges for service to consumers in the event that the laws and authority of the States or municipalities where the service is being rendered prove inadequate to protect the public interest.

SEC. 7. That all lands of the United States chiefly valuable for the development, generation, and utilization of water-power are hereby reserved from all entry, and the head of the executive department having control of such lands shall proceed as rapidly as may be to select, designate, and list the same, and shall publish such lists; and after such publication no lands so listed shall be disposed of except upon the express conditions that all rights to the occupancy and use thereof for the purpose of developing, generating, and utilizing electrical power are reserved in perpetuity exclusively to the United States, which reserved right shall be expressed in the patent; but the President may, in his discretion, revoke such designation at any time as to any lands not under lease: *Provided*, That if any holder of a lease under this Act injures or damages, by the erection or maintenance of works authorized under this Act, the lawful possession of any settler on lands which have not been designated by the President as herein provided, said lessee shall be liable to the party injured for such injury or damage.

SEC. 8. That the regulations authorized by this Act, and any alterations and amendments thereof, shall be transmitted to Congress as soon as practicable, and each head of an executive department affected by this Act shall annually report to Congress a copy of each lease issued during each year, and the number then in force, and a tabulation of all existing leases, as to name of lessee, term of years, location and amount of land occupied, capacity of plant, rate and amount of rental charge, and such other facts as Congress may require.

SEC. 9. That it is the intent of this Act to promote the development of water-power, as being the only means of conserving this valuable natural resource, and to provide reasonable security for the capital necessarily invested therein, and allow a fair return upon such investment and at the same time safeguard the users of the power so developed from extortion, and to fully protect the public interest.

SEC. 10. That all Acts and parts of Acts inconsistent herewith are hereby repealed.

APPENDIX XVII (b)

AMENDMENT TO BILL, S. 6795*

INTENDED TO BE PROPOSED BY MR. T. E. BURTON—A BILL TO CONTROL THE DEVELOPMENT OF WATER-POWER AND THE USE OF PUBLIC LANDS IN RELATION THERETO. DATED JUNE 8, 1912

STRIKE out all after the enacting clause and insert the following: That the Attorney General, the Secretary of the Interior, and the Secretary of Agriculture shall, for the purposes herein provided, jointly formulate and publish uniform rules and regulations for the use of public lands. The head of the executive department having jurisdiction and control of lands to be occupied and used in accordance with the provisions of this Act and in conformity to the rules and regulations to be formulated by virtue of the provisions of this section is hereby authorized to lease any part of the public lands of the United States, reserved or unreserved, including national forests, national parks, national monuments, Indian, military, and other reservations, including the district of Alaska, for a period not longer than fifty years, for the purpose of constructing, maintaining, and operating thereon dams, canals, ditches, pipe lines, flumes, tunnels, conduits, reservoirs, power-plants, transmission lines, and other works necessary or convenient to the development, generation, transmission, and utilization of hydro-electric or other water-power, which lease shall be irrevocable, but which shall become null and void upon breach of any of its terms. Each such lease shall be issued, as herein provided for, by the head of the executive department having control of the public lands to be used and upon a finding by him that such proposed lease is in harmony with the public interest and, if within any public forest, park, monument, or reservation, consistent with the purposes for which such forest, park, monument, or reservation was created: *Provided*, That transfer of jurisdiction over lands included in any lease from one department to another shall not affect the validity of the lease, but administration and control of the lease in relation to such lands shall be transferred to the department having jurisdiction of the land.

SEC. 2. That the rules and regulations made in pursuance of this Act, and each lease granted thereunder, shall provide for prompt and full

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*Both the original Bill and the Amendment were referred to the Committee on Public Lands, no report thereon having been made to the Senate.

development and continuous operation of the water-power; for a reasonable rate of rental and the terms of payment of the same; for negotiations for a renewal not more than ten nor less than five years prior to the expiration of the lease; for the valuation of and compensation for the physical properties upon the termination of the lease; for accurate reports to be made to the head of the department having jurisdiction and control, in such form and manner as may be prescribed, covering all items of cost, rates of service, and profits, together with all other information which may be required; for the control of capitalization and bonded indebtedness; and such other conditions and requirements as may be necessary to fully protect the public interest.

SEC. 3. That in case the Government shall itself take over the properties of any of these lessees under the provisions of this Act, or shall make or transfer its lease to other parties upon the expiration of the lease, it shall pay or require its new lessee to pay the reasonable valuation of all properties taken over or transferred, which shall include all works, equipment, structures, and other physical property created or acquired, valuable and serviceable in the generation and transmission of electrical power, including the transmission system from generating plant to initial points of distribution, and which are dependent in whole or in part for their usefulness upon the continuance of the lease herein provided for, but shall not include or take into consideration any properties or values whatsoever not specifically mentioned in this section. Such reasonable values shall be determined by mutual agreement between the head of the department having jurisdiction and control and the lessees, and in case they can not agree, then by proceedings instituted in the United States circuit court for the condemnation of such properties. The rule for determining the value shall be the cost of replacing the structures necessary and convenient for the development and transmission of hydro-electric or other water-power by other structures capable of developing and transmitting the same amount of marketable power with equal efficiency.

SEC. 4. That any lands included in any proposed lease under the provisions of this Act shall, from the date of filing the application for such lease, be reserved from entry, location, or other disposal under the laws of the United States: *Provided*, That rights of way contemplated by this Act or as provided by any laws of the United States may be approved, and prospecting, entering, or patenting of lands under the mineral-land laws may be allowed so far as the same will not impair, prejudice, or destroy the use of the lands for water-power development, generation, and utilization; it being the intent of this section that, in so far as possible, lands valuable for water-power and for mining shall be used for both purposes, the water-power, however, being the dominant use: *Provided further*, That upon the rejection of an application or the ter-

mination of any lease either by expiration or violation of its terms, unless the lands be again leased within reasonable time, the President of the United States may restore such lands to their prior status.

SEC. 5. That any lease issued under this Act shall not be assignable or transferable except upon the written consent of the head of the executive department having jurisdiction of the land.

SEC. 6. That in respect to every lease issued under authority of this Act the Federal Government reserves the right to control the charges for service to consumers in the event that the laws and authority of the states or municipalities where the service is being rendered prove inadequate to protect the public interest.

SEC. 7. That all lands of the United States valuable for the development, generation, and utilization of water-power are hereby reserved from all entry, and the head of the executive department having jurisdiction and control of such lands shall proceed, as rapidly as may be, to select, designate, and list the same, and shall publish such lists; and after such publication the lands so listed may be opened by the President to location, settlement, entry, and disposition under the appropriate public-land laws only upon the express conditions that all rights to the occupancy and use thereof for the purpose of developing, generating, and utilizing water-power are reserved in perpetuity exclusively to the United States, which reserved right shall be expressed in the patent; but the President may, in his discretion, revoke such designation at any time as to any lands not under lease: *Provided*, That the holder of any lease under this Act shall be liable, in the case of public lands not designated hereunder, to any settler thereon for any injury or damage which he may sustain on account of the erection or maintenance of works authorized under this Act; and in the case of lands designated hereunder, to any settler, owner, or occupant for the agricultural value of the lands and for any injury or damage to improvements or crops lawfully existing thereon.

SEC. 8. That nothing contained in this Act shall be construed as in any way exempting or relieving any lessee from full and complete compliance with all laws and regulations made by or under the authority of any State or Territory to whose jurisdiction it is subject.

SEC. 9. That the regulations authorized by this Act, and any alterations and amendments thereof, shall be transmitted to Congress as soon as practicable, and each head of an executive department affected by this Act shall annually make a report to Congress of each lease issued or terminated during the year, together with a tabulation of all existing leases, as to name and address of lessee, term of years, location and amount of land occupied, capacity of plant, rate and amount of rental charge, and such other facts as Congress may require.

SEC. 10. That it is the intent of this Act to promote the development of water-power, as being the only means of conserving this valuable natural resource, and to provide reasonable security for the capital necessarily invested therein, and allow a fair return upon such investment, and at the same time safeguard the users of the power so developed from extortion, and to fully protect the public interest.

SEC. 11. That all Acts and parts of Acts inconsistent herewith are hereby repealed.

APPENDIX XVIII (a)

BILL H. R. 32219

INTRODUCED IN THE UNITED STATES HOUSE OF REPRESENTATIVES, 61ST CONGRESS, THIRD SESSION, JANUARY 28TH, 1911, BY MR. H. O. YOUNG OF MICHIGAN. A BILL TO PROVIDE FOR THE IMPROVEMENT OF NAVIGATION IN THE ST. LAWRENCE RIVER, AND FOR THE CONSTRUCTION OF DAMS, LOCKS, CANALS, AND OTHER APPURTENANT STRUCTURES THEREIN AT AND NEAR LONG SAULT, BARNHART AND SHEEK ISLANDS

BE it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Long Sault Development Company, a corporation organized under a law of the state of New York, entitled "An Act to incorporate the Long Sault Development Company, and to authorize said company to construct and maintain dams, canals, power houses, and locks at or near Long Sault island, for the purpose of improving the navigation of the St. Lawrence river and developing power from the waters thereof, and to construct and maintain a bridge, and carry on the manufacture of commodities," which became effective May twenty-third, nineteen hundred and seven, its successors and assigns, be, and they hereby are, authorized to construct, maintain, and operate for navigation, water-power and other purposes for a period of ninety-nine years a dam or dams in so much of the St. Lawrence river as lies south of the International boundary line between the United States of America and the Dominion of Canada, near Long Sault, Barnhart, and Sheek islands, either independently or in connection with like works now erected or to be erected in so much of said river as lies north of said International boundary line, with a bridge or bridges and approaches thereto, and a lock or locks, a canal or canals, and other structures appurtenant thereto: *Provided*, That such dam or dams, lock or locks, canal or canals, and other structures appurtenant thereto, except as herein otherwise provided, shall be constructed, maintained, operated, modified, or removed in all respects subject to and in accordance with the provisions of the Act entitled "An Act to amend an Act entitled 'An Act to regulate the construction of dams across navigable waters,'" approved June twenty-third, nineteen hundred and ten: *Provided further*, That such bridge or bridges and approaches thereto, except as herein otherwise provided, shall be constructed, maintained, operated,

modified, or removed in all respects subject to and in accordance with the provisions of the Act entitled "An Act to regulate the construction of bridges over navigable waters," approved March twenty-third, nineteen hundred and six: *And provided further*, That the Secretary of War shall cause a survey of that portion of the St. Lawrence river to be affected by said improvements to be made with a view to securing a navigable channel, suitable for commerce up and down said river, from a point opposite the western end of Croil island to a point opposite the eastern end of Barnhart island, together with plans and specifications therefor, and all rights herein granted to the Long Sault Development Company shall be conditional on its improvement of said channel at its own expense, in accordance with said plans and specifications, said channel to be completed simultaneously with the other works herein authorized, all expenses connected with such survey and the preparation of such plans and specifications to be paid by the said company, its successors, or assigns.

SEC. 2. That said Long Sault Development Company, its successors and assigns, shall be subject to the provisions of the treaty between the United States and Great Britain relative to the boundary waters between the United States and Canada, proclaimed by the President of the United States on the thirteenth day of May, nineteen hundred and ten.

SEC. 3. That the actual construction of the works hereby authorized shall be commenced within two years and shall be completed within fifteen years from the date of the passage of this Act; otherwise this Act shall be void, and the rights hereby conferred shall cease and be determined.

SEC. 4. That if said Long Sault Development Company, or any other company or companies acting with it in such development, shall develop power by the construction of works a part of which shall be located north of the International boundary line, at least one-half of the power generated shall be delivered in the United States: *Provided*, That when in the opinion of the Secretary of War and the Chief of Engineers use can not be found in the United States for the full share thus assigned to this country the surplus may be temporarily diverted to Canada, but shall be returned to the United States when in the opinion of said officers it is needed: *Provided further*, That nothing herein contained shall be construed to prevent the importation from Canada of the whole or any part of the power generated from any of the said works in the St. Lawrence river.

SEC. 5. That should the works hereby authorized be or become at any time, in the opinion of the Secretary of War and the Chief of Engineers, inadequate to accommodate, or an interference with the navigation of that portion of the St. Lawrence river affected thereby, said

company, its successors or assigns, shall, under the supervision of the Secretary of War and the Chief of Engineers, make adequate provision for the accommodation of navigation; and should said company, its successors or assigns, fail so to do, the United States Government shall, under the supervision of the Secretary of War and the Chief of Engineers, do anything required to make such provision for navigation, and the expense thereof shall constitute a debt of said company, its successors or assigns, and a lien upon all its property.

SEC. 6. That the Long Sault Development Company shall execute a bond obligatory on itself, its successors and assigns, with good and solvent sureties in the sum of five hundred thousand dollars, payable to the United States, for the use and benefit of the riparian and other landowners in and along the St. Lawrence river conditioned to pay all damages that may accrue to them, or any of them, by reason of overflow, ice jams, and other causes produced by the erection or maintenance of said dam or dams, and the work of construction shall not commence until said bond is executed and approved by the Secretary of War and deposited in the War Department.

SEC. 7. That the right to alter, amend, or repeal this Act is hereby expressly reserved, and the United States shall incur no liability because of the alteration, amendment, or repeal thereof.

APPENDIX XVIII (b)

REPORT ON BILL H. R. 32219

61st Congress, Third Session, by the Committee on Rivers and Harbours of the United States House of Representatives

THE Committee on Rivers and Harbours in presenting the accompanying Bill to provide for the improvement of navigation in the St. Lawrence river submits the following explanation thereof, and recommends that the Bill do pass.

I. The Provisions of the Bill:

The Bill authorizes the Long Sault Development Co., a corporation organized under a special law of the state of New York for the purpose of improving navigation and creating power, to construct, maintain and operate for a period of 99 years for navigation, water-power, and other purposes, a dam or dams, with a bridge or bridges and approaches and a lock or locks and canal or canals, in that portion of the St. Lawrence river lying south of the International Boundary line near Long Sault, Barnhart, and Sheek islands, a few miles east of the town of Massena, St. Lawrence county, N.Y., either independently or in connection with like works now erected or to be erected in so much of said river as lies north of the International Boundary line.

The Act provides that such work shall be constructed, maintained, modified, or removed in all respects subject to and in accordance with the general dam act approved June 23, 1910, and the general bridge act, approved March 23, 1906.

The St. Lawrence river where the work is to be done is a boundary river between the United States and Canada. Therefore the Bill makes the Long Sault Development Co., its successors and assigns, subject to the provisions of the treaty between the United States and Great Britain relative to boundary waters between the United States and the Dominion of Canada. It is believed to be probable that under the terms of that treaty the consent and approval of the International Waterways Commission, provided for therein, will have to be obtained before the work can begin. In addition the work to be carried on is a very large one. For these reasons it has been provided that the company may have two years to begin the work and 15 years to complete it.

The Bill further provides that should the Long Sault Development Co. or any other company or companies acting in concert with it extend its works beyond the International Boundary line into Canadian waters, which would practically involve damming the whole river, that in such case at least one-half of the power developed by the completed works shall be delivered in the United States when needed.

It is believed by your Committee that the interests of navigation and that of the Government and people of the United States are completely safeguarded by the provisions of the general dam act, the general bridge act, and by the third proviso of section 1, together with sections 5 and 6 of the pending Bill. This question will be discussed more at length later in this report.

II. The Legislation of the State of New York:

The Long Sault Development Co. owes it origin to an act of the legislature of the state of New York, passed by a two-thirds vote, which received the approval of Gov. Charles E. Hughes. The Act created the Long Sault Development Co. as a corporation with the usual powers of corporations and in addition granted it the right to build works in the St. Lawrence river near Long Sault island, or Barnhart island, "but not north of the International Boundary line, unless consented to by the Dominion of Canada," for the purpose of improving navigation and creating a water-power and generating electrical power therefrom. This act fully recognized the jurisdiction of Congress over the question of navigation in the St. Lawrence river. The Bill in its original form did not provide for any compensation to the state of New York for the rights granted in the St. Lawrence river. This was not satisfactory to Gov. Hughes, and at his suggestion the Bill was recalled by the legislature and the matter of compensation to the State was then thoroughly canvassed by the Governor with the aid of Mr. Frederick Stevens, superintendent of public works of the state of New York, and the engineer and surveyor of that State upon one side, and the president of the Long Sault Development Co. and Mr. John R. Freeman, a distinguished engineer, upon the other side. These investigations were carried on through a period of several weeks, when a conclusion was reached by the Governor as to the compensation which ought to be charged the Long Sault Development Co. for the privileges created. His views upon the subject were known to the legislature and the Bill was amended in accordance therewith, passed, and received his approval and became a law May 23, 1907.

It provides for the deeding by the State to the Long Sault Development Co. of the bed of the St. Lawrence river at the points designated for which it was to be paid the sum of $10,000. All portions of the river-

bed not actually used by the said company for the building of its works are to revert to the state of New York. In addition said company to pay the state of New York for the year 1910, the sum of $15,000, for 1911 the sum of $20,000, and for each year thereafter upon the amount of power generated during each year up to 25,000 electrical horse-power at the rate of 75 cents per horse-power on all amounts in excess of 25,000 and up to 100,000 horse-power at the rate of 50 cents per horse-power and upon all amounts in excess of 100,000 horse-power at the rate of 25 cents per horse-power; provided that in no year after 1911, shall the amount paid the State be less than $25,000. It was stated in the Act that these payments were based upon the assumption that under this Act and subject to the lawful control of the United States Government the Long Sault Development Co. might use all of the waters of the St. Lawrence river south of the International Boundary line and that in case said company should at any time be compelled to make any payment to the Dominion of Canada or the province of Ontario for the use of such water (i.e., the water south of the International Boundary line) an equitable adjustment of the amount of compensation to be paid to the state of New York should be made.

It was stated before your Committee by witnesses, who were present at the negotiations with Gov. Hughes, that the reason why a lower rate of compensation was fixed for amounts in excess of 25,000 horse-power up to 100,000 horse-power, than for amounts below 25,000 horse-power, and a still lower rate for amounts in excess of 100,000 horse-power, was that the locality where this power was to be developed was a remote one, far distant from cities of large population, and that the industries to consume this power would have to be attracted to the spot by favourable terms. That it would be easy to dispose of a certain amount of this power, possibly up to 100,000 horse-power, but that in excess of that amount it would be difficult to find users, and that it was therefore wise to make lower terms for it.

The Long Sault Development Co. upon receiving the charter from the state of New York began preparations for exercising its rights thereunder, and has already expended about one and three-fourths million of dollars in the purchase of properties and preparation for developing water-power in the St. Lawrence river on a comprehensive plan.

III. The Rights of the State of New York:

It will be observed that this legislation of the state of New York is based upon the proposition that the state of New York owns the bed of the stream south of the International Boundary line and is entitled to use the waters for water-power, subject of course to the control of

Congress for navigation purposes, and has the power to convey such rights to third parties. Your Committee gave very careful consideration to this question. Without entering into an elaborate discussion of these legal questions it will be sufficient to state that both propositions seem to be firmly established not only by the decisions of the courts of the state of New York, but by the courts of the United States as well.

Among the cases holding that the state of New York is the owner of the bed of the stream of navigable rivers within its boundaries are the following:

Fulton Light Co. *v.* State of N. Y. (65 Misc. N. Y., 263).
Niagara Irrigation Co. *v.* College Heights Co. (111 App. Div., 770).
Pipe Line *v.* N. Y. & Lake Erie R. R. Co. (10 Abb. New Cas., 107).
In Matter of State Reservation (37 Hun., 537).
Canal Appraisers *v.* Tibbets (17 Wend., 570).
People *v.* Gillette (11 N. Y., Supp., 461).
Thousand Island Steamboat Co. *v.* Visger (179 N.Y., 206).
Barney *v.* Keokuk (94 U. S., 324).
Illinois Central R. R. Co. *v.* Illinois (146 U. S., 387).
Shively *v.* Bowlby (152 U. S., 1).
Scranton *v.* Wheeler (57 Fed. Rep., 803).
Packer *v.* Bird (137 U. S., 661).
Pollard's Lessee *v.* Hagan (3 Howard, 212).
Martin *v.* Waddel (16 Peters, 367).
Good Title *v.* Kibbe (9 Howard, 471).
United States *v.* Chandler-Dunbar Co. (200 U. S., 447).
Rumsey *v.* N. Y. & N. E. R. R. Co. (63 Hun., 200).

In Barney *v.* Keokuk (94 U. S., 338) the court says that there is "no sound reason for adhering to the old rule as to the proprietorship of the beds and shores of such (i. e., navigable) waters. It properly belongs to the states by their inherent sovereignty, and the United States has wisely abstained from extending (if it could extend) its survey and grants beyond the limits of high water."

In Pollard's Lessee *v.* Hagan (3 Howard, 212) the United States had attempted by patent to convey the bed of the Alabama river and the Supreme Court held the patent void because the United States by its acquisition of Alabama, through treaty with Spain, had never acquired any title to soil under the navigable rivers and none had been conferred by the Constitution of the United States.

In Scranton *v.* Wheeler (57 Fed. Rep., 803) Justice Lurton, now one of the justices of the Supreme Court of the United States, said at page 810:

> The doctrine that the title to the submerged lands within the banks of navigable rivers belongs to the states respectively within

which such rivers are situate, and not the United States was settled at an early day and has never been questioned.

In 1905 Gen. Mackenzie, Chief of Engineers, made a report to the Secretary of War, Mr. Taft, upon a Bill then pending in Congress, in which he said:

> The Federal Government has no possessory title to the water flowing in navigable streams, nor to the land comprising their beds and shores, and hence Congress can grant no absolute authority to anyone to use and occupy such water and land for manufacturing and industrial purposes. The establishment, regulation, and control of manufacturing and industrial enterprises, as well as other matters pertaining to the comfort, convenience, and prosperity of the people, come within the powers of the states, and the Supreme Court of the United States holds that the authority of a state over navigable waters within its borders, and the shores and beds thereof, is plenary, subject only to such action as Congress may take in the execution of its powers under the Constitution to regulate commerce among the several States.

The Secretary of War, William H. Taft, adopted the report of Gen. Mackenzie and stated that it was "comprehensive, accurate, and instructive." Subsequently, in 1907, a hearing was held before Mr. Taft, still Secretary of War, in relation to the water-power of the Des Plaines and Illinois rivers. It appeared that the Des Plaines river was probably not a navigable stream. But the Secretary of War, in deciding the application, said:

> But even if it had been a navigable stream, and even if the application had been made, and properly made to this department, to say whether this would interfere with navigation if the department concluded it would not interfere with navigation, then it is not within the power of the department to withhold its expressing such an opinion and granting such a permit, so far as the United States is concerned, for the purpose of aiding the State in controlling the water-power. If the State has any control over the water-power, which it may exercise in conflict with the claimed rights of the riparian owner, then it must exercise it itself, through its own legislation and through its own executive officers. All the United States does, assuming it to be a navigable stream, is merely to protect the navigation of the stream. With reference to the water-power, it has no function except in respect to water-power which it itself creates by its own investment in property that it itself owns; and then, of course, it may say how that water-power shall be used.
>
> But with respect to the water-power on a navigable stream, which may be exercised without interference with the use of the river for navigation purposes, that is controlled by the laws of the State. It is controlled by the riparian ownership and by the common law as it governs those rights. Therefore, I do not see, with reference to this matter, that this department has any function to perform or which it can perform.

The above are but a few of the authorities which may be quoted to the same effect. Your Committee has been unable to find a single judicial opinion to the contrary.

It will be observed that several of the above cases relate to the Niagara river and one to the St. Mary river, both of which are boundary streams between the United States and Canada, and no distinction is made as to the ownership of submerged lands in boundary and in other navigable rivers which are entirely within a state. The conclusion of your Committee is therefore that the ownership of the state of New York of the submerged lands under the St. Lawrence river, south of the International Boundary line, is too firmly established by a long and unvarying line of precedents to be now seriously questioned.

To the proposition that the State being the owner of the submerged lands may develop water-power therein and transfer such right to a third party, the following cases may be quoted:

Thousand Island Steamboat Co. *v.* Visger (179 N.Y., 206).
Langdon *v.* Mayor (93 N.Y., 129).
People *v.* N.Y. & Staten Island Ferry Co. (68 N.Y., 71).
Hoboken *v.* Penn. R. R. Co. (124 U.S., 656).
Huse *v.* Glover (15 Fed., 292; S.C. 119 U.S., 543).
Navigation Co. *v.* United States (148 U.S., 312).
Sands *v.* Manistee River Improvement Co. (123, U.S., 288).
Green Bay & Miss. Canal Co. *v.* Patten Paper Co. (172 U.S., 58).
Kaukaua Water-Power Co. *v.* G. B. & M. Canal Co. (142 U.S., 254).
People *v.* Tibbets (19 N.Y., 523).

In People *v.* Tibbets, the court says:

> It is beyond dispute that the State is the absolute owner of the navigable rivers within its borders, and that as such owner it can dispose of them to the exclusion of the riparian owners. In this case the State executed its power of disposition in making the lease, and consequently such lease is valid.

In Hoboken *v.* Pennsylvania Railroad Co. (124 U. S., 656) Mr. Justice Matthews, expressing the opinion of the court, said (p. 691) that the State had the power to grant submerged lands of navigable waters to individuals and that "under these grants the land conveyed is held by the grantees on the same terms on which all other lands are held by private persons under absolute titles, and every previous right of the state of New Jersey therein, whether proprietary or sovereign, is transferred or extinguished, except such sovereign rights as the State may lawfully exercise over all other private property."

In Monongahela Navigation Co. *v.* United States (148 U. S., 312) it was held that a state might authorize a private company to construct a dam, or other work, in connection with the improvement of navigation, and might further authorize the company to exact tolls.

These cases are conclusive on the question of the right of the state of New York to grant the exclusive use of the waters in the St. Lawrence river, south of the International Boundary line, to the Long Sault Development Co., subject, of course, to the control of Congress in the interest of navigation.

It appears clear, therefore, to your Committee that the state of New York was at the time it created the Long Sault Development Co. the owner of the bed of the St. Lawrence river, south of the International Boundary line, and had the right to use the waters therein for developing water-power; that it had power to convey this right to a third party, and that it had done so through the act of its legislature; that this action was not taken hurriedly or in the night time, but after due deliberation, with full knowledge of all the facts before it, and that its action received the approval of Gov. Hughes, than whom no official has ever been more alive to the duty of protecting the interests of all the people.

Believing, therefore, that the State having rights in the waters of the St. Lawrence river, and the United States having another right therein, in the interest of navigation, comity between the State and nation, and fair dealing between trustees representing different interests in a common property, required that, if possible, the rights of both State and the nation should be recognized and given full effect and that the power of the National Government should not, under the guise of protecting navigation, or from merely fanciful imaginary and indefinable fears of possible evils, be used to thwart the wishes of the State as expressed by its legislature and executive, nor to destroy its property, but that an honest attempt should be made to reconcile the interests of both the State and the nation and so legislate that both might be benefited by the action taken, your Committee has given its chief attention to the question of improving navigation in connection with the development of water-power under authority of the state of New York. It believes that these two objects may be pursued together not only without detriment to either, but with mutual advantage to both.

IV. The Locus in Quo:

The St. Lawrence river, from lake Ontario to its mouth, is navigable, except at a number of rapids up which boats can not go, and down which it is safe for very few boats to go. To provide for navigation at these points the Government of Canada has, at much expense, built canals upon the Canadian side of the river. One of these rapids occurs in the main channel of the river between Long Sault island and Barnhart island. It is known as the Sault rapids. Long Sault island is entirely in the territory of the United States. To the north of Long Sault island is situated Sheek island, entirely in Canadian territory, and

to the south of Sheek island and east of Long Sault island is situated Barnhart island, entirely in the territory of the United States. The distance from the western end of Long Sault island to the eastern end of Barnhart island is 11 miles. Long Sault island divides the river into two channels, the main channel north of the island and the South Sault channel south of the island. About 20 per cent. of the waters of the river flow through the South Sault channel and 80 per cent. of the waters flow through the main or northern channel to the eastern end of Long Sault island, where about 5 per cent. of the waters flow to the east through the Little channel, so called, between Sheek and Barnhart islands, through which the International Boundary line runs, while the main channel through which 75 per cent. of all the river flows is diverted to the south and its waters pour over the Long Sault rapids between Long Sault and Barnhart islands. The head of water that can be obtained just below these rapids is 35 or 40 feet. The evidence before your Committee showed that about 100,000 horse-power could be developed in the South Sault channel alone by works situated south of the International Boundary line, and that if works were extended through the main and little channels to the Canadian shore the amount could be increased to approximately 500,000 horse-power.

The accompanying map* shows the location and the works as proposed by the Long Sault Development Co. It must be remembered, however, that those on the American side may be greatly modified by the Secretary of War and the Chief of Engineers, and that those on the Canadian side are subject to modifications or rejection by the Canadian authorities.

V. Improvement of Navigation:

The South Sault channel and the Little channel, in their present condition, are not navigable for boats of ordinary size. The main channel between Long Sault island and Barnhart island is not navigable for any boats going upstream, nor is it navigable for any freight boats going downstream. Practically the only navigation through that part of the river is provided by one passenger boat a day for three or four months each year. This boat draws but about six feet of water and passes down over the rapids, but cannot ascend them. The excitement caused by the swirl of the water and the danger forms the chief attractions for this attempt. The real provision for navigation around the rapids is furnished by the Cornwall canal, which opens from the main channel of the river north of Long Sault island, passes into a little lake north of Sheek island, passes through the lake, and proceeding thence along the north bank of the river enters the main stream at Cornwall, some distance east of Barnhart island.

*Not reproduced in this report.

There are six locks in this canal and the passage through it is very slow. It was stated to your Committee by Mr. John Kennedy, a Canadian engineer of the highest standing, who represented the harbour commission of the city of Montreal, that the St. Lawrence canals were rapidly becoming obsolete and that the subject of canalizing the river must soon be considered in order to provide for larger boats and a greater amount of business. The proposed plan will provide for navigation in the river with but one lock and will be a very substantial improvement.

This Bill provides that the general dam act shall apply to all works erected in the St. Lawrence river south of the International Boundary line. It may be well, therefore, to examine some of the provisions of that wise act of legislation, reported by the Committee on Interstate and Foreign Commerce, intended to safeguard the interest of navigation. It provides that no work of the character contemplated by the pending Bill can be begun in any navigable stream until completed plans therefor have been submitted to the Secretary of War and Chief of Engineers and have received their approval and, further, that no deviation can be made therefrom without the consent of such officials. It provides that the Chief of Engineers and the Secretary of War in approving the plans and location for such works may impose such conditions and stipulations as they may deem necessary to protect the present and future interests of the United States, which may include the condition that the persons constructing or maintaining such dam shall construct, maintain, or operate without expense to the United States a lock or locks, boom, sluice, or any other structure which they or Congress at any time may deem necessary in the interest of navigation, and that the persons building such locks shall convey to the United States title to all land for such constructions and approaches and furnish free water for operating the same.

It protects third parties by the provision that the parties who construct the works shall be liable for all damage caused to third parties by overflow or otherwise. It is provided further that in approving such plans the Chief of Engineers and the Secretary of War shall take into consideration the effect of such structure upon a comprehensive plan for the improvement of the waterway, and that they may fix such charges for the privilege granted as may be sufficient to restore conditions with respect to navigability as existing at the time said privilege is granted, or reimburse the United States for doing the same or for any expense it may incur in connection with such project. It provides further that all rights acquired shall cease if the party acquiring them shall fail after reasonable notice to comply with any of the provisions or regulations of the act, or with any of the stipulations and conditions that may be prescribed by the Chief of Engineers and Secre-

tary of War, and reserves the right to revoke any right conferred under the Act whenever it is necessary for public use, but in that event the United States is to pay reasonable compensation to the party injured. It further provides that on failure to comply with any lawful order of the Secretary of War and Chief of Engineers, such officers may cause the removal of all works as an obstruction to navigation, at the expense of the persons owning or controlling them; and the right is reserved to alter, amend, or repeal the Act without incurring liability therefor to the owner or owners or any persons interested in such works. It will be seen that this Act is most carefully drawn and drastic in its provisions, and that nearly every contingency which human wisdom can foresee has been provided for.

VI. Increased Safeguards of Navigation:

But your Committee, in view of the great extent of the works contemplated at this point, of the great importance of the St. Lawrence river and of its international character, have not been content to rest on the general dam act alone but have added to its wise provisions. Your Committee was not willing to leave entirely to the discretion of the Secretary of War and the Chief of Engineers the determination of the question as to what provision for navigation should be made at this point. The third proviso of section 1 of the pending Bill provides that a survey shall be made under authority of the Secretary of War of that portion of the St. Lawrence river to be affected by such improvement, with a view to securing a navigable channel suitable for commerce up and down said river, from a point opposite the western end of Long Sault island to a point opposite the eastern end of Barnhart island, together with plans and specifications therefor and that all rights granted in said Bill to the Long Sault Development Co. shall be conditioned on its improvement of said channel at its own expense in accordance with said plans and specifications, said channel to be completed simultaneously with said other works herein authorized. In other words, the Long Sault Development Co. as a condition for being permitted to carry out its project is required at its own expense to furnish a suitable channel for navigation up and down the river through the Long Sault rapids.

That such a plan is entirely feasible was stated to your Committee by such eminent engineers as Mr. Alfred Noble and Mr. John R. Freeman. It will require but one lock in place of the six locks of the Cornwall canal. Instead of that narrow channel it will provide a channel not less than 600 feet in width. It will be a great and substantial improvement of navigation, and under the wise direction of the Chief of Engineers and the Secretary of War can easily be made to fit into a comprehensive scheme for the canalization of the whole river.

The Bill also contains a provision which in the judgment of your Committee amplifies and extends the power of the Chief of Engineers and the Secretary of War beyond that prescribed in the general dam act in that it compels the Long Sault Development Co., its successors or assigns, to make at its own expense adequate provisions for the changing and increasing demands of commerce. Section 5 provides:

> SEC. 5. That should the works hereby authorized be or become at any time, in the opinion of the Secretary of the War and the Chief of Engineers, inadequate to accommodate, or should they otherwise interfere with the navigation of that portion of the St. Lawrence river affected thereby, said company, its successors or assigns, shall, under the supervision of the Secretary of War and the Chief of Engineers, make adequate provision for the accommodation of navigation; and should said company, its successors or assigns, fail so to do, the United States Government shall, under the supervision of the Secretary of War and the Chief of Engineers, do the work required to make such provision for navigation, and the expense of such work shall constitute a debt of said company, its successors or assigns, and a lien upon all its property.

And finally the right to alter, amend, or repeal the Act is expressly reserved, and it is provided that the United States shall incur no liability because of the amendment, alteration, or repeal thereof.

To sum up, your Committee believes that the proposed improvement when worked out under the wise supervision of the Secretary of War and the Chief of Engineers, without any cost to the United States, will bring about a very substantial improvement of the navigation of the St. Lawrence river. That it will do away entirely with the dangers of the rapids and shorten by from four to six hours the time consumed in the trip each way by the route through the Cornwall canal and furnish a suitable channel for commerce entirely in American territory. At the same time and as incidental to navigation the development of the water-power under the authority of the State of New York will bring a considerable revenue to that State, utilize the natural resource that has heretofore run to waste, give employment to several thousand American workmen, and build up a prosperous manufacturing city in northern New York.

APPENDIX XIX (a)

BILL S. 10558

INTRODUCED INTO THE SENATE OF THE UNITED STATES BY MR. G. T. OLIVER, JANUARY 30, 1911. A BILL TO PROVIDE FOR THE IMPROVEMENT OF NAVIGATION IN THE ST. LAWRENCE RIVER AND FOR THE CONSTRUCTION OF DAMS, LOCKS, CANALS, AND OTHER APPURTENANT STRUCTURES THEREIN AT AND NEAR LONG SAULT, BARNHART, AND SHEEK ISLANDS

BE it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Long Sault Development Company, a corporation organized under a law of the state of New York, entitled "An Act to incorporate the Long Sault Development Company, and to authorize said company to construct and maintain dams, canals, power-houses, and locks at or near Long Sault island, for the purpose of improving the navigation of the St. Lawrence river, and developing power from the waters thereof, and to construct and maintain a bridge, and carry on the manufacture of commodities," which became effective May twenty-third, nineteen hundred and seven, its successors and assigns, be, and they hereby are, authorized to construct, maintain, and operate for navigation, water-power, and other purposes for a period of ninety-nine years, a dam or dams in so much of the St. Lawrence river as lies south of the International Boundary line between the United States of America and the Dominion of Canada, near Long Sault, Barnhart, and Sheek islands, either independently or in connection with like works now erected or to be erected in so much of said river as lies north of said International Boundary line, with a bridge or bridges and approaches thereto, and a lock or locks, a canal or canals, and other structures appurtenant thereto: *Provided*, That such dam or dams, lock or locks, canal or canals, and other structures appurtenant thereto, except as herein otherwise provided, shall be constructed, maintained, operated, modified, or removed in all respects subject to and in accordance with the provisions of the Act entitled "An Act to amend an Act entitled 'An Act to regulate the construction of dams across navigable waters,'" approved June twenty-third, nineteen hundred and ten: *Provided further*, That such bridge or bridges and approaches thereto, except as herein otherwise provided, shall be constructed, maintained, operated, modified, or removed in all respects subject to and in accordance

with the provisions of the Act entitled "An Act to regulate the construction of bridges over navigable waters," approved March twenty-third, nineteen hundred and six: *And provided further*, That the Secretary of War shall cause a survey of that portion of the St. Lawrence river to be affected by said improvements to be made with a view to securing a navigable channel, suitable for commerce up and down said river, from a point opposite the western end of Croil island to a point opposite the eastern end of Barnhart island, together with plans and specifications therefor, and all rights herein granted to the Long Sault Development Company shall be conditional on its improvement of said channel at its own expense, in accordance with said plans and specifications, said channel to be completed simultaneously with the other works herein authorized, all expenses connected with such survey and the preparation of such plans and specifications to be paid by the said company, its successors, or assigns.

SEC. 2. That said Long Sault Development Company, its successors and assigns, shall be subject to the provisions of the treaty between the United States and Great Britain relative to the boundary waters between the United States and Canada, proclaimed by the President of the United States on the thirteenth day of May, nineteen hundred and ten.

SEC. 3. That the actual construction of the works hereby authorized shall be commenced within two years and shall be completed within fifteen years from the date of the passage of this Act; otherwise this Act shall be void, and the rights hereby conferred shall cease and be determined.

SEC. 4. That if said Long Sault Development Company, or any other company or companies acting with it in such development, shall develop power by the construction of works a part of which shall be located north of the International Boundary line, at least one-half of the power generated shall be delivered in the United States: *Provided*, That when in the opinion of the Secretary of War and the Chief of Engineers use can not be found in the United States for the full share thus assigned to this country the surplus may be temporarily diverted to Canada, but shall be returned to the United States, when in the opinion of said officers it is needed: *Provided further*, That nothing herein contained shall be construed to prevent the importation from Canada of the whole or any part of the power generated from any of the said works in the St. Lawrence river.

SEC. 5. That should the works hereby authorized be or become at any time, in the opinion of the Secretary of War and the Chief of Engineers, inadequate to accommodate, or an interference with, the navigation of that portion of the St. Lawrence river affected thereby, said company, its successors or assigns, shall, under the supervision of the

Secretary of War and the Chief of Engineers, make adequate provision for the accommodation of navigation; and should said company, its successors or assigns, fail so to do, the United States Government shall, under the supervision of the Secretary of War and the Chief of Engineers, do anything required to make such provision for navigation, and the expense thereof shall constitute a debt of said company, its successors or assigns, and a lien upon all its property.

Sec. 6. That the Long Sault Development Company shall execute a bond obligatory on itself, its successors and assigns, with good and solvent sureties in the sum of five hundred thousand dollars, payable to the United States, for the use and benefit of the riparian and other landowners in and along the St. Lawrence river conditioned to pay all damages that may accrue to them, or any of them, by reason of overflow, ice jams, and other causes produced by the erection or maintenance of said dam or dams, and the work of construction shall not commence until said bond is executed and approved by the Secretary of War and deposited in the War Department.

Sec. 7. That the right to alter, amend, or repeal this Act is hereby expressly reserved, and the United States shall incur no liability because of the alteration, amendment, orrepeal thereof.

APPENDIX XIX (b)

REPORT ON BILL S. 10558

61st Congress, Third Session submitted by Mr. T. E. Burton of Ohio, from the Committee on Commerce

THE majority of the Committee on Commerce, to which was referred the Bill (S. 10558) to provide for the improvement of navigation in the St. Lawrence river and for the construction of dams, locks, canals, and other appurtenant structures therein at and near Long Sault, Barnhart, and Sheek islands, report the same to the Senate and recommend that the same do pass when amended as set forth herein.

By reason of the brief time remaining for the transaction of business during the present session and the opposition which has developed from various sources it is doubtful whether this Bill can become a law. But in view of the elaborate attention which the Committee has given to it, and the importance of certain principles which it is believed should be adopted in the passage of measures where water power and navigation are combined, the Committee desires to explain this Bill and set forth certain views relating to it.

The Bill as introduced grants to the Long Sault Development Co., a corporation organized under the laws of the state of New York, the right to construct a dam or dams in so much of the St. Lawrence river as lies south of the International Boundary line between the United States and the Dominion of Canada near Long Sault, Barnhart, or Sheek islands, either independently or in connection with like works now erected or to be erected, in that portion of the St. Lawrence river which lies north of the International Boundary line, with a bridge or bridges and approaches thereto, and a lock or locks, a canal or canals, and other structures appurtenant thereto. The Bill grants an authorization—subject to the general dam act approved June 23, 1910, and to the general dam act approved June 23, 1910, and to the general act relating to the construction of bridges, approved March 23, 1906. It provides that the Secretary of War shall cause a survey of that portion of the St. Lawrence river to be affected by the improvements with a view to securing a navigable channel suitable for commerce up and down the said river from a point opposite the western end of Croil island to a point opposite the eastern end of Barnhart island, a distance of about 11 miles, together with plans and specifications therefor, and the rights herein granted are made conditional on the improvement of said channel

by the company at its own expense in accordance with the plans and specifications made by the Secretary of War. (See sec. 1.)

Section 5 of the Bill, as originally drawn, declares that if at any time the works authorized shall, in the opinion of the Secretary of War and the Chief of Engineers, be inadequate to accommodate navigation or an interference therewith, the company shall make adequate provision for the accommodation of navigation under the supervision of the Secretary of War and the Chief of Engineers, and if they should fail to do so the United States Government may, under the supervision of the Secretary of War and the Chief of Engineers, do anything required to make such provision for navigation, and the expense therefor shall constitute a debt of said company, its successors or assigns, and a lien upon all its property.

The Bill as originally introduced seems to recognize the necessity for the concurrent action of the Canadian Government. It is stated in section 2 that the company shall be subject to the provisions of the treaty between the United States and Great Britain relative to the boundary waters between the United States and Canada, proclaimed May 13, 1910.

In section 4 there is a provision to the effect that one-half of the power generated shall be delivered in the United States. But if use can not be found in this country for the full share thus assigned to it, the surplus may be temporarily diverted to Canada. Also, that nothing in the Bill shall be construed to prevent the importation from Canada of the whole or any part of the power generated from any of the said works in the St. Lawrence river.

Section 6 requires the execution of a bond in the sum of $500,000 for the use and benefit of the riparian and other landowners in and along the St. Lawrence river, conditioned to pay all damages that may accrue to them, or any of them, by reason of overflow, ice jams, and other causes produced by the erection or maintenance of said dam or dams.

The usual right to alter, amend, or repeal is carried in section 7.

In the authorization for the erection of works for the creation of water-power it is conceded that the consent of the Canadian Government, that of the state of New York, and of the United States must alike be obtained. The river is a boundary stream, and at this point there are four islands of considerable size, three of which are in the United States and one in Canada. There are rapids in the river sufficient to preclude upstream navigation, but the channel is utilized in some degree by steamers going downstream, especially by the passenger boats of the Richelieu & Ontario Navigation Co.

The total quantity of horse-power which can be developed in the respective channels of the river in this section has been estimated at

not less than 500,000. It will be observed that the situation affords possibilities in the way of development of power surpassed in very few localities in the world. It is also regarded as desirable that this great asset be utilized for the benefit of the people of the two countries abutting upon the river. The members of the Committee have considered the problem of safeguarding the interests of navigation and the general public, especially with a view to utilizing water-power, providing more perfect channels for navigation, and avoiding any monopoly or right of the corporation to impose burdensome charges.

The legislature of the state of New York, by an Act passed on the 23rd of May, 1907, granted to the Long Sault Development Co. a perpetual franchise, in which was conveyed the right to construct dams and the necessary appurtenances to develop and transmit power. The Act does not in terms impose any obligation on the company to submit its charges for the service rendered to any public tribunal or to the legislature of the state of New York.

The objects which should be secured are:

(1) The promotion of navigation. It is not only probable but reasonably certain that at no very remote date the St. Lawrence in this section will carry a very large amount of traffic. This is now provided for in a measure by a lateral canal, but for larger vessels and more convenient navigation it must be conceded that a channel in the main river would be essential. Such a channel is possible in the southerly arm of the river south of Long Sault and Barnhart islands.

The Bill makes the grant by the Federal Government conditional that the dams which are to be constructed for purposes of water-power shall subserve navigation and provide for present and future needs of commerce.

In addition to the dams, the lessees must provide locks and the necessary appurtenances to dams and locks. Also they must take care of the channel south of Barnhart island, below the proposed dam in the southerly arm of the river. It is represented that a channel not less than 30 feet in depth and 600 feet in width will be provided. The present depth available for boats from the Great lakes down the St. Lawrence is only 14 feet, and the length of the boats for which the Welland canal is available is limited to 250 feet.

The Committee recommends certain amendments for the more perfect safeguarding of navigation by inserting on page 3, line 15*, after the word "expense," the words "including such dam or dams, lock or locks, and appurtenances thereto as may be necessary for navigation as herein provided." This insertion makes clearer the obligation of the company authorized to construct and maintain the locks and dams which are necessary.

*See page 171, line 11.

The Committee also recommends, again, by inserting on page 6* line 18, after the word "property," the following:

> And should said Company, its successors, or assigns fail to maintain or operate its dam or dams, lock or locks, with such appurtenances thereto as may be necessary for navigation, in such a manner as to adequately provide for navigation, the United States Government may, under the supervision of the Secretary of War and the Chief of Engineers, assume jurisdiction and control over the maintenance and operation thereof, and in case the said Company or its successors or assigns shall discontinue the use of the said dam or dams and works necessary for navigation connected therewith, or their ownership thereof shall terminate for any cause, or upon the expiration of the period of authorization granted by this Act, then the sole ownership therein, together with the necessary land and approaches appurtenant thereto, shall vest in the United States so far as the same may be located within the territory of the United States.
>
> It is hereby declared to be the intention of this Act to impose upon the Company to which the authorization is herein granted, its successors and assigns, the maintenance of the channel or channels of the St. Lawrence river herein described in a form and to a degree of efficiency sufficient for the present and future demands of navigation, and any works herein authorized which are aids to navigation shall be by the said Company, its successors or assigns, maintained for that purpose for and during the life of the authorization hereby granted, and the same shall be in suitable condition for permanent use at the termination of this authorization. The Secretary of War and Chief of Engineers are instructed and directed to enforce this provision, and any and all provisions of this Act intended for the maintenance and promotion of navigation.

The members of the Committee were not entirely agreed upon the insertion of the words "or upon the expiration of the period of authorization granted by this Act."

The object of provisions and limitations imposed in such a grant is of course the proper security of navigation, and it has been argued in opposition to this provision that an affirmative clause requiring the surrender of the dams and locks at the expiration of the period of authorization would increase the expense of power given to consumers, because the Company would find it necessary, in addition to the charge of operation and interest upon their investment, to accumulate a fund equal to the value of these dams or locks during the period for which the grant is given; also that the necessary requirements of

*See page 172, line 7.

navigation are secured if dams and locks are provided and maintained by the Company utilizing the power created.

It is not the intention of the Committee to seek to establish a precedent for the insertion of such a clause in future grants, but to make certain that whatever works in navigable streams are constructed for the creation of power shall be permanently available for purposes of navigation. The Committee recommends that so far as possible in future grants for the creation of power a condition be attached, that the grantee shall be obligated to construct and maintain dams and locks suitable for the navigation of the portion of the river which is utilized. The decision must rest in a degree upon the circumstances in each particular case. In some instances, it is probable that such a requirement would be unduly severe, but in the case of a water-power of enormous value like this, it is clear that no rights should be granted except upon the express condition that a permanent improvement in navigation shall be made a condition of the grant, and that such improvement shall continue after the period fixed for the grant itself.

(2) The second object to be guarded in a Bill of this kind is a reasonable limitation in the length of the franchise. In view of the probable increase in the use of water-power, and the very manifest increase in the demand for it, together with the danger of monopoly in the enjoyment of such grants, it is thought desirable to limit the period of authorization to 50 years, or a period of that approximate length. The Bill as introduced provides for a period of 99 years and it is claimed that in this particular case the expense and difficulty are exceptional. It is maintained that the necessary works will eventually cost between $40,000,000 and $50,000,000. Again, that in the northerly portion, or half of the river, seven to ten years will be required for the installation of dams, locks and appurtenances. The unusual time for completion is in a measure due to the comparatively short seasons in which work can be done in this locality. In view of these exceptional conditions, the Committee thought best to allow the duration of the franchise to 15 years for completion. It is accordingly recommended that on page 2, line 5,* the Bill be amended by striking out the words "of ninety-nine years," the length of time provided in the Bill and inserting in lieu thereof "terminating fifty years after the expiration of the time allotted by this Act for the completion of the works hereby authorized." The time allowed for the completion of the work is 15 years, thus making a stated period of 65 years.

In the Bill as presented to the Senate, the period of 15 years is allowed for the creation of any and all structures contemplated. In the opinion of the Committee the dam and appurtenant works for the

* See page 170, line 13.

southerly channel should be completed in less time. It is especially important that this part be completed at the earliest possible date, because the navigable channel is located here.

The Committee accordingly recommends that in lieu of section 3, which grants 15 years for completion of the work, the following be inserted:

> That the actual construction of the work hereby authorized shall be commenced within two years and shall be prosecuted diligently and continuously to completion to the satisfaction of the Secretary of War; and the works in the channel south of Long Sault island shall be completed within six years from the date of the passage of this Act, and all of such work shall be completed within fifteen years from the date of passage of this Act; and in case of failure to comply with the conditions of this section this Act shall be void, and the rights hereby conferred shall cease and be determined: *Provided*, That the time of completion shall apply only to dams, locks, and other works necessary to or constituting an improvement of navigation, and which works shall have been approved by the proper authorities.

The clause at the close of this amendment, "That the time of completion shall apply only to dams, locks, and other works, etc.," which shall have been approved by the proper authorities, is made necessary by the fact that the Canadian Government has not yet authorized the construction of the works in the northerly portion of the river.

(3) The next object to be secured is the assurance that reasonable charges and service will be afforded by the Company. With this object in view the Committee recommends the insertion of the following on page 5, line * 19, after the word "river":

> It is understood, and this Act is enacted on the express condition, that the state of New York shall have authority to fix from time to time reasonable charges for power to be furnished by the said Long Sault Development Company and to regulate the service for the electric current to be produced by it, and that the same shall be furnished to all proposed consumers who apply in good faith to purchase the same and without unfair discrimination as to service and charge.

In the granting of a franchise of so great magnitude it is altogether desirable to submit to some proper authority the regulation of charges and the service and to prevent unfair discrimination between the consumers of power. It is thought that this object is fully secured by the amendment above quoted.

A perplexing question arises in grants of this nature as to whether the control of prices should rest with the Federal Government or with the State in which the improvement is located. Without stating potent arguments for leaving control to the State in which the power

*See page 171, line 39.

is to be utilized, because of a better understanding of the situation and the immediate control of a corporation which is of its own creation, it is thought that at least in this case the interests of the public will be carefully safeguarded by leaving this question to the state of New York. The Committee would especially recommend, however, that franchises for water-power be not granted except upon terms which will secure fair charges and prevent monopolistic control and that jurisdiction be granted to State or National authority as shall prove most effective.

The members of the Committee having this Bill under consideration regard the three objects above stated as the most important in grants of water-power in navigable streams. It is thought desirable to pursue a liberal policy in enabling companies and organizations to develop water-power which is now running to waste and to impose no unreasonable restrictions, but at the same time to safeguard navigation, prevent monopoly or excessive charges, and render this enormous asset of the country's resources available for the largest possible number. It is recommended that before the right to develop water-power in a navigable stream is granted, the effect of grant upon navigation shall be considered and that if necessary a complete survey be made of such section of the navigable stream as may be affected by the improvement, so that one harmonious plan for improvement may be accomplished. In this case these rapids constitute an obstacle which can be removed or properly treated under the provisions for examination and improvement under the direction of the Secretary of War and Chief of Engineers. There should also be provision that the terms of the grant may be complied with and in case of failure that it may be annulled by an official of the Government. In the opinion of the Committee this is sufficiently guarded in the provisions of the Bill at least with the addition of the amendments suggested.

Numerous propositions have been made for the imposing of a license fee or charge upon those who enjoy the privilege. In the case of this grant such a charge has been imposed by the legislature of the state of New York in the grant of the franchise. One difficulty in the way of imposing such a charge arises from the concurrent or double jurisdiction of the State in which the improvement is located, and that of the United States. It is further to be suggested that in case the Government of the United States desires to impose such a charge upon those who develop water-power, action can be taken in the way of an excise tax upon all water-power, whether heretofore in use or hereafter to be granted. Such a tax would have in it the element of fairness in that there would be no discrimination between grants already made and those hereafter to be made. The Committee would not

recommend any considerable tax on this species of property, because the inevitable result would be to increase the cost of power to consumers.

There are one or two further questions presented by this Bill, one of which is of a very important nature, because the river at the point in question is on the boundary line between the United States and Canada. The Committee is of the opinion that, while reference is made to the treaty of 1910, the Bill as originally introduced does not take into account treaty provisions and the common rights of the two countries. They therefore recommend the insertion on page 4, line 2,* after the word "ten," the following:

> Before any works are commenced in the channel south of Long Sault island the plans thereof must be approved by the International Joint Commission, to be appointed in accordance with the terms of said treaty, or by such other tribunal as may be agreed upon by the respective Governments interested in said waterway; but any works herein authorized, other than in the channel south of Long Sault island, shall not be commenced until after the approval of the proper authorities of the Dominion of Canada thereto has been obtained.

It is thought that this provision, which clearly renders consent by the Canadian Government necessary before any construction can be commenced on either side of the river, secures a sufficient observance of the treaty rights as well as comity of action in the prosecution of this great work.

The attention of the Committee has been called to the fact that some objection has been raised in the state of New York to the further prosecution of this improvement, the exact nature of which is unknown to the Committee. Itis to be observed that a franchise, giving full rights, has been granted by the state of New York without limit in time. The members of the Committee would call attention to the provision giving the right to that State, whether existing under its present statutes or not, to regulate charges and service. The provisions of the Bill are certainly as favourable to the state of New York as the franchise granted by its own legislature by more than a two-thirds vote. Any objection to the adequacy of the provision for navigation made by the authorities of New York should be received with the utmost deference, and it is not probable that the Bill will pass before such objections can be made. If promptly raised, no doubt due attention can be given to any request from the authorities of the state of New York. It should be observed, however, that so far as the definite action of the State, heretofore taken is concerned,

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* See page 171, line 21.

Congress, in passing this Bill, would be merely affirming and strengthening action already taken by that Commonwealth.

In the opinion of the majority of the Committee, this Bill, when amended as proposed, marks a distinct advance in regulations for the grant of privileges for the utilization of water-power in navigable streams. It is probable that in the future still further limitations and reservations will be regarded as desirable, but in no bill heretofore presented to Congress or passed by it has such complete provision been made for the paramount right of navigation and the utilization of great natural resources in accordance with the public interest. The majority of the Committee therefore recommend that, when amended as herein set forth, the Bill do pass.

Recapitulation of Proposed Amendments

Page 2, line * 5, strike out the words "of ninety-nine years" and insert in lieu thereof the words: "terminating fifty years after the expiration of the time allotted by this Act for the completion of the works hereby authorized."

Page 3, line † 15, after the word "expense," insert the following: "including such dam or dams, lock or locks, and appurtenances thereto as may be necessary for navigation, as herein provided."

Page 4, line ** 2, after the word "ten," insert the following:

> Before any works are commenced in the channel south of Long Sault island the plans thereof must be approved by the International Joint Commission, to be appointed in accordance with the terms of said treaty, or by such other tribunal as may be agreed upon by the respective Governments interested in said waterway; but any works herein authorized, other than in the channel south of Long Sault island, shall not be commenced until after the approval of the proper authorities of the Dominion of Canada thereto has been obtained.

In lieu of section 3 insert the following:

> SEC. 3. That the actual construction of the work hereby authorized shall be commenced within two years and shall be prosecuted diligently and continuously to completion to the satisfaction of the Secretary of War; and the works in the channel south of Long Sault island shall be completed within six years from the date of the passage of this Act, and all of such work shall be completed within fifteen years from the date of passage of this Act; and in case of failure to comply with the conditions of this section this Act shall be void, and the rights hereby conferred shall cease and be

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* See page 170, line 13.

† See page 171, line 11.

** See page 171, line 21.

determined: *Provided*, That the time of completion shall apply only to dams, locks, and other works necessary to or constituting an improvement of navigation, and which works shall have been approved by the proper authorities.

Page 5, line * 19, after the word "river," insert the following:

It is understood, and this Act is enacted on the express condition, that the state of New York shall have authority to fix from time to time reasonable charges for power to be furnished by the said Long Sault Development Company, and to regulate the service for the electric current to be produced by it, and that the same shall be furnished to all proposed consumers who apply in good faith to purchase the same and without unfair discrimination as to service and charge.

Page 6, line † 18, after the word "property," insert the following:

And should said Company, its successors or assigns, fail to maintain or operate its dam or dams, lock or locks, with such appurtenances thereto as may be necessary for navigation, in such a manner as to adequately provide for navigation, the United States Government may, under the supervision of the Secretary of War and the Chief of Engineers, assume jurisdiction and control over the maintenance and operation thereof, and in case the said Company or its successors or assigns shall discontinue the use of the said dam or dams and works necessary for navigation connected therewith, or their ownership thereof shall terminate for any cause, or upon the expiration of the period of authorization granted by this Act, then the sole ownership therein, together with the necessary land and approaches appurtenant thereto, shall vest in the United States so far as the same may be located within the territory of the United States. It is hereby declared to be the intention of this Act to impose upon the Company to which the authorization is herein granted, its successors and assigns, the maintenance of the channel or channels of the St. Lawrence river herein described in a form and to a degree of efficiency sufficient for the present and future demands of navigation, and any works herein authorized which are aids to navigation shall be by the said company, its successors or assigns, maintained for that purpose for and during the life of the authorization hereby granted, and the same shall be in suitable condition at the termination of this authorization for permanent use. The Secretary of War and Chief of Engineers are instructed and directed to enforce this provision and any and all provisions of this Act intended for the maintenance and promotion of navigation.

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* See page 171, line 39.
† See page 172, line 7.

APPENDIX XX

HEARINGS ON BILL S. 10558

FEBRUARY 8TH 1911, TO PROVIDE FOR THE IMPROVEMENT OF NAVIGATION IN THE ST. LAWRENCE RIVER AND FOR THE CONSTRUCTION OF DAMS, LOCKS, CANALS, AND OTHER APPURTENANT STRUCTURES THEREIN AT AND NEAR LONG SAULT, BARNHART, AND SHEEK ISLANDS, BEFORE THE COMMITTEE ON COMMERCE OF THE SENATE OF THE UNITED STATES, SIXTY-FIRST CONGRESS, THIRD SESSION

THE sub-committee of the Committee on Commerce having under consideration the Bill S. 10558 met at 10.45 o'clock a.m.

Present: Senators Burton (chairman), Smith of Michigan, and Clarke of Arkansas.

Senator BURTON: Gentlemen, there are two or three things I believe the sub-committee want to hear about. First, there is the question of the relation of the Government of Canada to this proposition. What do you say about that?

There is one practical question I would like to hear about. There was something done about this in the House yesterday, was there not? This Committee, of course, does not wish to take up the question of this Bill if it has been turned down in the House. What was the significance of that action?

Mr. MALBY: Mr. Chairman, I desire to call your attention to that. A motion was made under the usual rule of the House to suspend the rules under the 20-minute proposition and pass the Bill. The House declined to do that, and I doubt whether there is any particular significance in it further than that, on the ground that it did not afford sufficient time for deliberation. There was a statement made on the floor as to which I would like to inquire of my friend Mr. Littlefield whether it is so or not. Congressman Sulzer, who, as it is well known, is from New York, made this statement. I read from the Congressional Record as follows:

> MR. SULZER: Is it not a fact that the authorities of the state of New York are opposed to the passage of this Bill?
>
> MR. YOUNG of Michigan: No, sir; the state of New York is favourable to the passage of this Bill.

MR. SULZER: I understand the state of New York at the present time is not in favour of this Bill, and that there is going to be an effort made to repeal the law which was passed a year or so ago.

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MR. SULZER: My information is that the state of New York is now opposed to this Bill.

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MR. SULZER: * * * I am informed the authorities of the state of New York at the present time are opposed to this Bill, and that an effort is going to be made to repeal the state charter, but be that as it may——

MR. YOUNG of Michigan: Will the gentleman give the source of his information?

MR. SULZER: I refer the gentleman to the Hon. Charles E. Littlefield, a former member of this House.

I would like to ask Mr. Littlefield if he made that statement; and if so, if he had any authority for making it?

MR. LITTLEFIELD: I do not care to enter into any discussion of what took place in the House, and do not propose to here, before this Committee. I shall state to the Committee the character of the opposition I represent when I get along to that stage of the matter. I have to-day a very brief time to examine this record. If I was going to discuss that record, there are a great many statements in it I would want to discuss. I am prepared, when I get around to it, to state the people I am authorized to present objections for. Further than that I do not care to state. What I prefer to do is this: I declined before the Committee on Rivers and Harbours of the House to enter into a discussion of the people who are interested, pro and con, and I stated that I preferred to address myself to public considerations that I thought were entitled to weight before the Committee.

MR. MALBY: That is my purpose now. The chairman of the Committee inquired what proceedings were had yesterday in the House. I thought it was pertinent, when a gentleman from New York rose on the floor of the House and announced that the State administration was against it, and I think it was very proper——

MR. LITTLEFIELD: As I say, I do not care to enter upon a discussion of these questions.

SENATOR SMITH of Michigan: Mr. Malby, I do not think Judge Burton intended to curtail your right to be heard here. Of course we want to judge of the proposition on its merits. I would not accept the judgment of the House on the proposition myself. We have more deliberation, and ought to have as much patience as they.

MR. MALBY: If the members of the Committee will bear with me just a moment, I would like to narrow the scope of the inquiry as much as possible, and if the Committee agree with me, of course it can be

narrowed; but I have not any objection to the Committee affording us such time as they can, and extending the inquiry in any way they please. Let me briefly state my position.

SENATOR CLARKE of Arkansas. The inquiry of the chairman has this significance at this time: The Senate Calendar is crowded and the House Calendar is crowded. If there is a definite probability that that Bill cannot pass the House, it would be a waste of time to make a draft upon our limited time for the purpose of preparing it for passage in the Senate.

MR. MALBY: I appreciate that, Senator; but the matter has come up in that way, and a Representative from the state of New York has made a positive statement that the administration of the State is against it. I submit that if the administration of the state of New York is against that, it is up to Congress—these people having spent two or three million dollars in this enterprise—to afford them an opportunity to be heard; and nothing of that kind has been heard. Further than that, I hold in my hand this telegram received by me. I understood something of that kind was going on. This telegram reads as follows:

ALBANY, N.Y., February 7, 1911

Hon. GEORGE R. MALBY,
House of Representatives, District of Columbia:

Gov. Dix directs me to assure you that he has not interested himself in the matter of the Long Sault Co., and has not authorized any person to express for him any wish or opinion, officially or otherwise, regarding the Bill pending in Congress affecting such Company.

E. A. MERRITT, Jr.

E. A. Merritt, jr., is the leader of the minority of the present legislature; he was the leader of the majority before. He is a member of the assembly from St. Lawrence County, where this power is to be developed, and he is the gentleman who introduced and secured the passage of the Bill in the legislature of the State four years ago.

SENATOR CLARKE of Arkansas: Have you any provision in your State constitution that allows you to repeal franchises; or has it not passed, as a contract, beyond the control of the legislature?

MR. MALBY: I want to say that there is no provision made, in the constitution or otherwise, which authorizes the legislature to repeal or modify an act unless the State, as I understand it, becomes responsible to the parties injured who have proceeded in good faith on the strength of the charter. Now, it is impossible for the state of New York to repeal this charter without being responsible, in my judgment, as a matter of law, to these gentlemen who have in good faith invested their money.

SENATOR CLARKE of Arkansas: That would depend altogether upon the reservations, either in the Act or in the State constitution.

MR. MALBY: There is no reservation in the Act and there is none in the constitution. I do not recall any, Senator, which grants authority after a corporation has gone out in good faith and invested money, and where it has not in any wise violated the charter, for the State to repeal that charter; and no such thing is in contemplation, as you can very well see from this telegram from Mr. Merritt.

By the way, the whole contest on the floor of the House, and the whole objection, was as to the limitation, whether it should be 50 years or 100 years. If we had consented to the 50-year proposition, the Bill would have gone through. On the merits of the Bill there was no objection in the House, the only objection being on that 50-year proposition, and if we had accepted that, so far as the discussion went, the Bill would have been unanimously adopted.

MR. LITTLEFIELD: You do not mean that without qualification?

MR. MALBY: So far as I know. That is, there was no other argument made against the Bill.

MR. LITTLEFIELD: I read the Record hurriedly, but I thought there was. However, I do not propose to discuss that.

MR. MALBY: There was no objection except on the 50-year proposition.

MR. LITTLEFIELD: I shall not take a minute's time discussing that thing before the House. We are here to be heard before this Committee.

MR. MALBY: Let us see if we understand what is before the Committee.

SENATOR BURTON: I think you had better proceed with your general statement. I do not think this sub-committee can decide this question right here. The printed hearings before the Committee on Rivers and Harbours have just been brought in here, and we have some other documents, and we will have to examine them. We would like to have your statements, pro and con. How much time would you like?

MR. MALBY: I do not know that I care to say much, personally. I would like to hear Mr. Davis, the president of this Company, and perhaps one or two others, present it as a business matter. I shall not consume but just a minute of the time.

SENATOR BURTON: How much time do you want; say 30 minutes?

MR. MALBY: That is long enough.

SENATOR BURTON: I do not think you need go into that matter of the action of the state of New York; I do not see that there is any need of that. So far as it is presented, it would seem that there was no basis for that contention.

MR. MALBY: No.

SENATOR BURTON: I do not know that you can offer more than a conjecture as to what the House will do. Was there any further action taken in the House yesterday beyond that dialogue?

MR. MALBY: None.

MR. LITTLEFIELD: There was a vote of 66 to 84 refusing the passage of the Bill.

MR. MALBY: No; they refused to suspend the rules.

MR. LITTLEFIELD: The vote was 66 to 84 against suspending the rules and passing the Bill.

SENATOR BURTON: It might have been because the House regarded other matters pending as more important. There is no inference to be derived from the refusal to take up the Bill, except what appears in the Record, is there?

MR. MALBY: No, sir; I think the Record stands for that, so far as it has been written. I do discover, Mr. Chairman, however—

SENATOR CLARKE of Arkansas: Was there a vote on that motion to suspend the rules?

MR. MALBY: There was no roll call on the matter; it was simply a standing vote.

SENATOR CLARKE of Arkansas: Mr. Littlefield said the vote was 66 to 84.

MR. LITTLEFIELD: Yes, that is in the Record.

MR. MALBY: There was no roll call at all; it was merely a standing vote.

SENATOR CLARKE of Arkansas. Well, we have about an hour this morning for this hearing.

SENATOR BURTON: Thirty minutes.

MR. MALBY: I do not know that I want more than 30 minutes.

SENATOR BURTON: I mean 30 minutes to each side.

MR. LITTLEFIELD: It will be impossible for me to present this case within that limit of time. I will do whatever the Committee say; but it is absolutely impossible for me to make an adequate presentation of what the Committee ought to consider in 30 minutes.

SENATOR CLARKE of Arkansas. We wanted to have it ready for the whole Committee to-morrow. Of course, if you gentlemen want it to go over for another week it may do so.

MR. LITTLEFIELD: I am going to submit myself entirely to the will of the Committee. I want to say that I cannot present adequately before the Committee the points that the Committee ought to consider, if I have only 30 minutes. I will do what the Committee wish. If you should give me 10 minutes, I will do what I can in 10 minutes; but I must have the record show that I cannot present adequately the considerations that in my judgment ought to be presented in 30 minutes.

Senator Burton: Mr. Littlefield, you must realize that it is late in the short session and that we are all of us exceedingly busy, and 30 minutes is a fair amount of time for the presentation of questions pending before a committee of the Senate. There has already been a hearing in which a considerable amount of time has been given to each side. Now, if there is something that you cannot complete in the oral argument, why of course you can present it to us in a brief. I do not think this ought to go beyond to-day; but you can supplement your remarks by a brief, and we will all of us read that. I speak, I think, advisedly on that.

Mr. Littlefield: I am going to be entirely under the direction of the Committee.

Senator Burton: I think 30 minutes is sufficient. Now, if you will, please proceed.

STATEMENT OF HON. GEORGE R. MALBY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. Malby: I shall occupy just a minute or two of the time. If I am correct, gentlemen, with reference to the issues which are involved here, they are simply these: What does Congress want this company to do to conserve navigation? If I am correct about it, there is no other question pending before Congress, and there can be no other. All the questions which have led up to the passage of this Act and our presence here are matters which legally and legitimately and properly have belonged before, and have been passed upon, by other tribunals. I do not mean in any wise to shut the door, if the gentlemen of the committee want to investigate any of these matters or if it is profitable. They certainly have our consent, and will have our co-operation in getting all the information they want; and when they get right down to the final analysis, this Committee acts as the Committee on Rivers and Harbours had the right to act, under that clause of the Constitution which authorizes Congress to regulate commerce. I take it that that is the only reason why a corporation organized under the laws of the state of New York is here; indeed, it is the only reason why a corporation organized under the laws of any State would be here.

Whatever you gentlemen in your good judgment say is necessary to conserve navigation. I feel that I may say the parties are willing to concede whatever it may be that you want done. If I am correct, and I think I am, we are here only to have the Committee say what in their judgment shall conserve navigation. We have put ourselves under the general dam act, we have put ourselves under the jurisdiction of the Secretary of War, we have placed ourselves under the jurisdiction of the Chief of Engineers of the United States Army, we have outlined

the plan of operation. The International Waterways Commission passed upon this; the Chief of Engineers of the United States Army passed upon it and still has control of it.

SENATOR BURTON: What was the finding of the International Waterways Commission in regard to it?

MR. LITTLEFIELD: They were equally divided on it.

MR. DAVIS: The American section?

MR. LITTLEFIELD: The American section one way and the Canadian section the other way.

MR. MALBY: Oh, well, Mr. Chairman, I am talking about the people of the United States; that is all that this Bill attempts to deal with.

It would be difficult, not to say unprofitable, to speculate as to what the Canadian authorities would do if this matter was presented to them. The matter must of necessity be presented to the Canadian authorities; and we would like to eliminate, if we could, any speculation as to what Canada would do, when we get to them.

SENATOR BURTON: You concede that for the construction of these works the consent of the Canadian Government is necessary?

MR. MALBY: Absolutely essential, sir. There will be no work done in the United States of America unless Canada consents. This is one job, Mr. Chairman, or it is nothing.

SENATOR BURTON: Your theory is this, that rather than to work this out by treaty agreement or arrangement, it is better to have concurrent legislation by the United States and Canada?

MR. MALBY: I can conceive of only one way in which it can legally and constitutionally be worked out.

SENATOR BURTON: That is, a treaty might come in conflict with the control of Congress over interstate commerce; is that your idea?

MR. MALBY: It certainly would; it would come in conflict with personal rights.

Now, while the Government of the United States has the undoubted right, in the interests of navigation, to go to this point and spend $40,000,000, it is the evidence of the engineers, which is before you, that it would cost the Government substantially the same amount of money to put in these dams that it will cost this Company, if they were to improve navigation. In other words, it would cost $40,000,000. Consider the absurdity of the Government undertaking to do such a thing, considering the limited amount of navigation, and particularly when they can get everything that they would have then, without paying anything for it.

SENATOR BURTON: This point was touched upon briefly in the prior hearings. It is the usual custom, when Congress makes provision for the improvement of navigation, to require, preliminary to

any legislation, a detailed survey; a statement of the size of the channel, its depth and width, and all conditions pertaining thereto. What do you say of the proposed omission of these preliminary steps?

Mr. Malby: Mr. Chairman, I do not concede that there has been an entire omission. If this Committee desires any possible detail with regard to the width of that river at any point, or the depth of water at any point, we can point it out to the chairman, and it is on file, and the Secretary of War and the Chief of Engineers have it all on file. I do not see that any further surveys can possibly be required. Everything has been done. The surveys are all in the office of the Secretary of War and in the office of the Chief of Engineers. They have been carefully compiled here. But if anything further is required, there will be no possible objection to putting into the Bill a proposition that before anything is done, complete and absolute surveys made by the United States engineers shall be had. Mr. Chairman and gentleman of the Committee, we do not care a snap what it is, we invite the placing in this Bill of anything that you want in order to conserve navigation, anything within the bounds of human reason; and we conceive that that is the only question that is really before us. The other questions have been passed upon by the state of New York in advance. But if the chairman or the members of the Committee should desire to have those questions discussed—which I do not regard as requisite at all, it simply clouds the issue—we would be glad to do it.

Here stands a company, for the first time in the history of the world, which proposes to expend $40,000,000 in the development of this great water-power. It is like finding a gold mine or a coal mine in the country, and we want to get to work at it, and we want this Committee to say on what terms we may go to work.

Now, what about the Ashburton treaty? I have not paid much attention to that; it is one of the things that is thrown at you as you pass by. That provides that the St. Lawrence river shall never be obstructed without the consent of the contracting parties. This provides that the Dominion of Canada must of necessity concur in this improvement, or there is nothing in the Ashburton treaty.

Senator Burton: Just there, do I understand you to concede that no steps can be taken by this Company without the full consent of the Dominion of Canada?

Mr. Malby: I take it that that is absolutely correct; that is on International waters. I think that it would be utterly impossible for us to take any step whatever in the construction of any dams without the concurrence of the Canadian Government. So, therefore, I eliminate whatever opposition there may be in Canada. We must go to that tribunal, and let us not befog ourselves by details which will arise there.

We are trying to create conditions under which we can proceed under the laws of the United States.

We have done more than any other water company was ever organized to do, or more than any that was ever organized in the United States. At the present time the United States Government, at Troy, N.Y., is putting in a dam which is to cost a million or two of dollars, at its own expense, which it will operate at its own expense, with no cost to the locality; and a power dam, at that, in part, the same as this is. The state of New York is canalizing the whole Hudson river, without any request upon the Congress of the United States, for nearly 100 miles. It has gotten no authority whatever from the Government. Why? Because it seems to be the opinion of the learned lawyers that it was not necessary and is not necessary to ask the consent of the Government of the United States to anything, except to have their concurrence with reference to the improvement of navigation; and in that event, even, the State has the right to go on unless the Government interferes. They have taken the chance that the Government would not interfere with the improvement of the Mohawk river, and they are going ahead with it. But we do not want to take any such chance. We want the consent of the Government and we want the Government to tell us what to do. Is not that a fair proposition?

That is about all I have got to say. This Ashburton treaty provides what? Does anybody suggest that that treaty provides that for countless ages there shall be no improvement of the St. Lawrence river? Was it intended as an obstruction of the improvement of navigation? Certainly not. It was intended that one Government or the other could find fault if obstructions were put in the river which were not in the interest of navigation; but it never was intended, if the proposition was clear, if it was in the interest of navigation, that there should not be any improvement of the river; and that fact has been certified to by such distinguished engineers as Mr. Freeman, who is the consulting engineer of the Panama canal, who has been down there twice with the President of the United States, and Mr. Noble, one of the greatest engineers in the country. They both testified, as anyone could see who went there, that this would be a vast improvement of navigation.

SENATOR SMITH, of Michigan: Mr. Malby, is this project affected in any way by the new boundary treaty between the United States and Canada?

MR. MALBY: Not at all, except that we provide in the Bill itself that we must go to them.

SENATOR SMITH, of Michigan: I understand you mean under the new treaty?

MR. MALBY: Under the new treaty.

SENATOR SMITH, of Michigan: You must have their sanction?

MR. MALBY: We must have their sanction. We are coming to Congress now, because we would not have anything to present to them unless we did. We are taking the next step.

I think that is all from me, Mr. Chairman. I would like to hear from Mr. Littlefield his outline of the issues; and then, if anything develops, I would like to call on Mr. Freeman, our engineer, and Mr. Davis, who is the president of the Company, and also I would like you to hear Mr. McCarthy, from Toronto, upon any Canadian questions that might arise, and perhaps somebody else. I think I have consumed about 10 minutes.

SENATOR BURTON: A little more than that.

STATEMENT OF HON. CHARLES E. LITTLEFIELD

MR. LITTLEFIELD: Mr. Chairman, I am ready to reply to Brother Malby on this branch of the case, and then I want to take all the time I have left on another matter.

SENATOR BURTON: Proceed in your own way.

MR. LITTLEFIELD: Very well. First, on this let me say, as perhaps clearing up very briefly the atmosphere of the case so far as the Committee is concerned, the matter pending before the Committee is a matter, as I trust the Committee fully appreciates, of importance and consequence. It is an international proposition, and the Canadian Government has taken some interest in the question. I want to read to you from the debate in the House of Commons under the date of February 2, 1911, from a statement made by Sir Wilfrid Laurier, the Canadian premier. He says:

> When we heard of this Bill being introduced at Washington we put ourselves into communication with the British ambassador to remonstrate; and correspondence is going on now upon the subject. He says further, in response to an inquiry, as follows:
>
> MR. REID (Grenville): Did I understand the prime minister to say that he had already protested to British Ambassador Bryce against the passage of this Bill in Washington?
>
> SIR WILFRID LAURIER: We made representations; yes.

That is all I know about that. Of course that is public information. That was stated in the Dominion Parliament on the 2nd of February.

On account of the limited time, Mr. Chairman, I shall not stop to read some telegrams that I have here or some papers which I have, which I will place in the record that is to be made by Mr. Johnson, who represents us both here in reporting stenographically what is being said here this morning.

I have here a telegram requesting me to respectfully present to the Committee the protests of the following organizations, and I feel bound to do that before I proceed with the discussion. They are as follows, and I will put into the record a copy of their protests:

MONTREAL, QUEBEC, February 7, 1911

Hon. CHAS. E. LITTLEFIELD,
New Willard Hotel, Washington, D.C.:

We, the undersigned, acting for our respective organizations, ask that you enter our respectful protest before the Committee on Commerce of the United States Senate against the passage of the pending Bill in the interest of the Long Sault Development Co.

JAS. J. GUERIN
Mayor of Montreal

ROBT. W. REFORD
First Vice-President Board of Trade

FRED. C. LARIVIERE
La Chambre de Commerce

L. F. GEOFFRION
Acting President Harbour Commissioners

J. H. SHERRARD
Vice-Chairman Canadian Manufacturers' Association

H. LAPORTE
President Montreal Citizens' Association

ANDREW A. ALLAN
President the Shipping Federation of Canada

L. L. HENDERSON
Montreal Transportation Co

GEORGE CAVERHILL
Richelieu & Ontario Navigation Co.

SENATOR CLARKE of Arkansas: What is the ground of their opposition?

MR. LITTLEFIELD: The telegram says:

> Enter our respectful protest before the Committee against passage of pending Bill.

That is without going into details as to the reasons. That has all been dealt with by telegraphic correspondence within the last day or two.

The Montreal Board of Trade state their reasons a little more fully, and if Senator Clarke will excuse me, I will put this into the record without reading it.

SENATOR CLARKE of Arkansas: I would like to know, in a general way, what the objection is.

MR. LITTLEFIELD: They summarize in this way:

That in event of any works being constructed in an international channel, that these works should be constructed, owned, and controlled for all time by the respective Governments.

SENATOR CLARKE of Arkansas: That is a matter of policy that they have not got anything to do with.

MR. LITTLEFIELD: They own half of it.

SENATOR CLARKE of Arkansas: The Canadian Government can do that; but it does not seem to have anything to do with it.

MR. LITTLEFIELD: That is the reason why they protest here. This is an International waterway, and they said it should not be obstructed unless approved and agreed upon by the two Governments.

SENATOR CLARKE of Arkansas: There are a good many people interested in this project. If this comes from the Canadian Government, it has one significance; whereas, coming from private individuals, it may have another.

MR. LITTLEFIELD: Yes; and the Committee will notice, as we discuss this, that I propose to appeal to the Committee from the standpoint of higher legislation and international ethics.

MR. CLARKE of Arkansas: Is that objection open to you, unless you represent the Canadian Government?

MR. LITTLEFIELD: I present a petition here—

SENATOR CLARKE of Arkansas: But have they not got complete control of that part which is in their own Government? Have you a right to interpose that objection?

MR. LITTLEFIELD: But this Bill proposes to deliberately construct these works without their consent. I disagree entirely with my learned friend in regard to that.

SENATOR CLARKE of Arkansas: That is, bringing about a condition that might result in correspondence?

MR. LITTLEFIELD: Yes; I say that it is actually proposed to allow this corporation to build a dam south of the International Boundary line, without the consent of Canada.

SENATOR CLARKE of Arkansas: South of it?

MR. LITTLEFIELD: Yes; In distinct violation of the treaty conditions.

SENATOR CLARKE of Arkansas: Do you contend that that part of the water in the St. Lawrence river which runs exclusively in American territory must run uselessly forever, then? Canada has properly exercised the right to construct the Cornwall canal. Do you mean to say that we can not deal with our own side so long as what we do, does not obstruct the main channel of the river?

MR. LITTLEFIELD: I propose to address myself to that proposition. I disagree entirely with Brother Malby as to this; but if he is right the legislative history of this Bill fails signally to disclose his real inten-

tion. I am going to confine myself to matters right here before the Committee. I was only giving this, Senator Clarke, as the reasons suggested by the Montreal Board of Trade. They say further:

> That in the event of the development of water-powers on an International waterway there shall be a proper division of the power, and that the construction of the works shall be such that each country shall be able to develop the full quota of power to which it is entitled in its own territory.
>
> That in the event of constructing new canals and locks that same shall be built in Canadian territory, where the channel now is, and not on the New York State side.

This is dated February 6, 1911. I am simply reading it for what it is worth. I shall not stop to discuss it. I have other protests that I am requested to present, and without stopping, I will put them into the record that is taken by the stenographer. I trust that your honours will perceive that, so far as I am concerned, I look upon these matters as immaterial. To my mind it is a matter of very little consequence whom I happen to represent here, or what their particular interests are. If I am able to present considerations here which are entitled to weight, the considerations will speak for themselves. No matter whom I represent, no matter how many interests may be involved, no matter how much capital may be behind them, no matter whether they are on the Canadian side or on the American side, that adds no weight, I take it, to what I say here. What I say here, Mr. Chairman, I trust will be taken upon the weight of the suggestions I may make, predicated upon the facts I state. If I am able to suggest important public considerations here predicated upon well-known facts, that should deter or delay the action of the Committee, so be it. Nothing is added to or taken away from the weight by the fact that anybody is or is not represented. Of course, I have a standing here, and the Committee are anxious to learn—and it is very proper—as to who may be making protests here. While as an individual I would have a right to come here personally and make this statement as a matter of fact I represent these gentlemen. I do not mean to say that I am retained by these gentlemen, all of them, to present these protests. We went through all that in the Committee on Rivers and Harbours of the House, and I do not propose to take any time on that. I am going to devote myself to the considerations that the Committee are interested in. The only use you have here for me this morning is to see whether or not I can shed any light on this situation, and be of any aid to the Committee in reaching a proper conclusion, and it is going to be my purpose to address myself to that, and if I swing outside and address myself to any other consideration, it is not my intention to do so.

SENATOR BURTON: That all goes without saying.

MR. LITTLEFIELD: Yes. Now, to come right to the point, what is the Ashburton treaty? I stated to the Committee the other day that there is nothing in that treaty that as a legal proposition inhibits any action on the part of Congress. You are all lawyers, and are familiar with that legal proposition. But there is a contractual agreement between the United States and Canada which the people I represent believe is being infringed by the legislation in its present shape. Now let me call attention to the Ashburton treaty. I beg your honours to note the significance of the language, and if I only have time in these 30 minutes to discuss this proposition, I propose, so far as I can, to discuss it fully, and it is of no use for me to stand here and make a few statements without covering the subject so that I can be of service to the Committee.

SENATOR CLARKE of Arkansas: Direct your remarks to the doubt that is raised in my mind. I will present it in this way. Here is a scheme for an independent legislative solution of this question. This scheme must be presented to the Canadian authorities, and they can turn it down if they want to. The question of the treaty does not come into it, because it is taken up *de novo* and dealt with as an independent proposition. That treaty does not widen or decrease our right to say that we do not propose to deal with you on that basis.

MR. LITTLEFIELD: No; but I submit this to the Senator, that if there is legislation pending here that can be made effective without the consent of Canada, and all that is proposed here can be done without consulting her, that is another proposition.

SENATOR CLARKE of Arkansas: Yes.

MR. LITTLEFIELD: I am going to try to demonstrate that. Now, what is the Ashburton treaty? My proposition predicated upon that is that this legislation that is pending here is a violation of the agreement. I concede we have the power to violate it. I do not concede that we have the right to violate it. Do I make the distinction clear between the legal power and the moral right? Now, how does it read? It is necessary to make a logical statement of my position. What is it? This treaty reads:

> It is further agreed that the channels in the river St. Lawrence, on both sides of the Long Sault islands and of Barnhart island; the channels in the river Detroit, on both sides of the island Bois Blanc, and between that island and both the American and Canadian shores; and all the several channels and passages between the various islands lying near the junction of the river St. Clair with the lake of that name, shall be equally free and open to the ships, vessels, and boats of both parties.

Now, mark the significance of it. The only place on the river St. Lawrence that is made the subject matter of this International agreement is the specific spot that these people propose to improve. The

treaty does not apply to one channel. We had some discussion the other day as to whether that long dam was within or without the territory of the United States, if the line was properly drawn; but this treaty and International agreement does not apply to one channel, but to both channels, Mr. Chairman, on both sides of the Long Sault; that is, the channel on the upper side and the channel on the lower side. They propose to build a power-house and dam across the lower channel on one side of the Long Sault islands. Now, it is of no consequence to me, so far as this question is concerned, whether or not the long dam is within the territory of the United States. My judgment is that it is. I will not take the time here to discuss it; but I have a letter here from Gen. Ernst, and I will read it to you. I inquired of him as to whether or not the line had been located. Some suggestion was made here the other day that the dotted line did not indicate the accurate line. Gen. Ernst says:

February 7, 1911

C. E. LITTLEFIELD, ESQ.,

The New Willard, Washington, D.C.

DEAR SIR: In reply to the inquiry contained in your letter of the 6th instant, you are respectfully informed that the International Boundary line near the head of Long Sault rapids, in the St. Lawrence river, has never been actually located upon the ground. Under Article IV of the treaty between the United States and Great Britain, signed April 11, 1908, the International Waterways Commission is authorized to ascertain and re-establish and mark upon the ground the boundary line at this place. It has begun the work but has not completed it.

Yours very respectfully,

O. H. ERNST

Brigadier General, United States Army, retired,
Chairman of American Section, International Waterways Commission.

That is all I know about it. But it is not material. The treaty specifically provides that the channels "on both sides of the Long Sault islands and of Barnhart island"—which covers this precise territory—shall be kept open; and it is a little significant that the only place on the whole St. Lawrence river that the treaty makers found it necessary to enter into an agreement in relation to is this specific spot where this power is now proposed to be developed.

SENATOR BURTON: Suppose, Mr. Littlefield, the Government of the United States should dredge in that channel, would that be a violation of that treaty?

MR. LITTLEFIELD: No; I do not think it would, because it would still be open. If it is kept free and open, it would not be a violation.

SENATOR BURTON: Is it not true that the construction of a lock, while nominally an obstruction, is nevertheless, or might nevertheless be, an improvement to navigation?

MR. LITTLEFIELD: That is quite true, but—

SENATOR BURTON: So far as the actual result is concerned, the substance and not the form of the treaty ought to be regarded?

MR. LITTLEFIELD: That is quite true. But apply that to this existing condition before us. Here is an International agreement that the channel shall be kept open. What is it now proposed to do? The United States proposes to shut it up and then re-open it in accordance with its own judgment, without getting the assent and concurrence of Canada.

SENATOR BURTON: Then would you say that an improvement of navigation by the construction of a lock which would utilize the channel for navigation was a violation of the treaty? That is, it might not be navigable at all before the lock was constructed, and after the lock was constructed it would be available to navigation; but notwithstanding that, it would be a violation of the treaty?

MR. LITTLEFIELD: Yes, I get your point, exactly. Of course the treaty relates to this specific spot. I say that after the United States and Great Britain have entered into a solemn International agreement that that river should be kept open, it is not open to either Canada or the United States to change the status of either of those channels by any scheme that either one may of itself decide may be wise or unwise without the consent or concurrence of the other. It is not open to the United States to say, "We have devised a scheme that, in our judgment, will be as good as it would, or better than it would have been to have left the channel open."

SENATOR CLARKE of Arkansas: Would not your point be made clear by putting into this a provision that it is not to become effective until the other Government agrees to it?

MR. LITTLEFIELD: Yes, sir; that answers the whole thing.

SENATOR CLARKE of Arkansas. That is what they say they expect, to get the Canadian Government to agree to it.

MR. LITTLEFIELD: Well, but they do not do it, and that they deliberately propose not to do it I state now with the legislation right before me. Now, why do I say that? Let me call your honour's attention to it. I agree with you perfectly. Let me give you the legislative history in regard to this matter. It may be that I cannot read the English language, but I have never been successfully charged with that inability, nor with the inability to use it for the purpose of expressing my thoughts. The Bill introduced by Mr. Malby was introduced December 14, 1909.

SENATOR CLARKE of Arkansas: That is not the one before us.

MR. LITTLEFIELD: No; but it is significant as bearing upon the history. It says that the Act shall become effective from the date of consent of the proper authorities of the United States and Canada. Mark this language:

> from the date of the consent of the proper authorities of the United States of America and the Dominion of Canada to the construction of said works, or of the approval of the plans and specifications and location and accessory works thereof; and this Act shall not be construed as authorizing said company, its successors or assigns, to construct the said dams, canals, locks, and other works until such consent and approval shall be obtained.

Do you find that in the Bill before you? Not by any means; not the slightest reference to it. It distinctly eliminates it. No; this Bill was submitted, as I want to show your honours, to Gen. Ernst, of the Board of Engineers, and he referred to this particular section of this Bill that is pending in the House, H. R. 14531.* March 11, 1910, was the date of this report: Gen. Ernst says:

> The Bill referred to us seems to recognize the necessity of co-operation between the two Governments, but it does so in a vague way, and is much less explicit than it should be. A separate section should be introduced, worded as follows:
>
> "Section —. This act shall not become operative until the Government of the Dominion of Canada shall signify to the Secretary of State of the United States its consent to the construction of such dam and other structures: *Provided*, That if said consent be not given within two years from the date of this Act, then this Act shall be null and void."

Does this Bill pending before you comply with the recommendation of Gen Ernst? Not in the slightest degree; not for a moment. There is not a suggestion or hint in it.

MR. MALBY: To whom was that addressed?

MR. LITTLEFIELD: To Hon. D. S. Alexander, chairman Committee on Rivers and Harbours, House of Representatives, Washington, D.C.

MR. MALBY: What document is that in?

MR. LITTLEFIELD: This is the Sixth Progress Report of the International Waterways Commission. It is signed by all three members of the American section—Ernst, Clinton, and Haskell. Now, if you put into this substantially what Gen. Ernst recommends here, that obviates every objection I am now making from this point of view. The suggestion of the Senator from Arkansas is precisely pat on that proposition.

Now, what does this Bill do? Let me rather say, what does it purport to do? I will read from the report made by Mr. Young, chairman of the sub-committee in the House on this. He says:

See Appendix IV, pp. 68, 69.

It is believed to be probable that under the terms of that treaty the consent and approval of the International Waterways Commission, provided for therein, will have to be obtained before the work can begin.

Now let me read to your honours the provisions of the treaty.

SENATOR BURTON: What treaty? There have been two.

MR. LITTLEFIELD: Yes; this is the very last treaty, the treaty referred to in the Bill. The Bill before you does not provide that this work be approved by the International Waterways Commission, as my brother Malby inadvertently asserted. What does it provide? Let your honours note the significance. It is a very great pleasure to me to present these suggestions to gentlemen for whom I do not have to elaborate them, because you can appreciate the suggestions as we go along. What is the provision? It is as follows:

SEC. 2. That said Long Sault Development Company, its successors and assigns, shall be subject to the provisions of the treaty between the United States and Great Britain relative to the boundary waters between the United States and Canada proclaimed by the President of the United States on the thirteenth day of May, nineteen hundred and ten.

That makes them subject to the provisions of the treaty. It does not make the operation of the Bill subject to the consent of the Commission. Note that. It simply puts them under the provisions of the treaty. It falls short. My brother Malby might perhaps have thought that it did. Mr. Young said that it was probable that it did.

SENATOR SMITH of Michigan: It must invoke the consent of the Commission?

MR. LITTLEFIELD: Let me just read to your honours, so that you will see how far from effective this treaty is. Now, there are two paragraphs to that treaty that relate to the flow and the building of dams, paragraphs 3 and 4. Of course your honours will excuse me if I do not read them in detail. I will simply state them in substance here, and I will simply refer your honours to the language of the treaty, if you desire to go further in the investigation.

SENATOR BURTON: I think we are familiar with it.

MR. LITTLEFIELD: Yes.

SENATOR BURTON: We considered it three or four weeks.

SENATOR CLARKE of Arkansas: I would like to know whether the Government of Canada has delegated to that Commission its right to consent; if it has delegated it, in the general form, the power to consent.

MR. LITTLEFIELD: I am going to read that to you right now, so that you can see how much is accomplished in this Bill by putting in the new provision, subjecting them not to the provisions of the agreement but to the provisions of the treaty only. Articles III and IV of

this treaty are the two articles that relate to the flowing, and the building of dams. Article VIII is the article that provides what can be done. The provision is as follows:

> This International Joint Commission shall have jurisdiction over and shall pass upon all cases involving the use or obstruction or diversion of the waters with respect to which under Articles III and IV of this treaty the approval of this Commission is required.

Now let me read what the approval is, so that your honours can see what it means. The last paragraph of Article VIII says:

> The majority of the commissioners shall have power to render a decision.

Of course that means that if these questions are submitted to the Commission and a majority of the Commission agree, it settles it. Now then, what? Suppose they do not happen to agree; what then? Let us see if anything is settled.

> In case the Commission is equally divided upon any question presented to it for decision separate reports shall be made by the commissioners on each side to their own Government.

You do not get anywhere up to that point.

> The High Contracting Parties shall thereupon endeavor to agree upon an adjustment of the question or matter of difference, and if an agreement is reached between them it shall be reduced to writing in the form of a protocol and shall be communicated to the commissioners, who shall take such further proceedings as may be necessary to carry out such agreement.

What does that mean? What is the whole purport of that section? The whole purport is that if this Act, for instance, goes to the Commission and all of the American section and one of the Canadian section assent to it, it goes. But suppose they divide; what happens then? No agreement is reached. It then goes to the High Contracting Parties if no agreement is reached. Still we do not get anywhere. Then you have no decision from your Commission. Up to this date, unfortunately, this Commission has happened to divide equally, the Americans upon one side and the Canadians upon the other, and if that was the result in this case there would not be any decision. Then what does this Act provide? Mark you, this is the provision of the treaty under which this Act proposes to proceed; if you do not get a majority you do not get any decision. Now, what does the Act provide?

Senator Clarke of Arkansas: The treaty says that the High Contracting Parties shall decide.

Mr. Littlefield: Yes, but if the High Contracting Parties do not agree, then you do not get anywhere. Just a moment, and I will get to the Senator's question. I am more than pleased to have you make

inquiries as we go along. Let me read this. Bear in mind, now, that this present Bill deliberately omits the provisions that require the approval of the Dominion of Canada, and simply refers to a treaty under which, unless a majority of the Commission agree, no result is reached one way or the other, leaving them right where they began. Let me go back to the Act. What does the Act say? It says that they are hereby

> authorized to construct, maintain, and operate for navigation, water-power, and other purposes for a period of ninety-nine years a dam or dams in so much of the St. Lawrence river as lies south of the International Boundary line between the United States of America and the Dominion of Canada, near Long Sault, Barnhart, and Sheek islands—
>
> Now, mark you—
>
> either independently—
>
> What does that mean? It means what it says, does it not?
>
> either independently or in connection with like works now erected or to be erected in so much of said river as lies north of said International Boundary line, with a bridge or bridges and approaches thereto, etc.

What does that mean? If there is no agreement on the part of this International Waterways Commission, if they divide equally, what then? There is no decision. The Act does not require the approval of the Commission; it simply puts in operation this peculiar machinery. They may not land anywhere, and may not produce any result. And then what? They have to go back to the Act with their authority and proceed independently. Then what? Then we come to the Ashburton treaty, which is an International agreement, which says that this river shall be kept open. We propose now to say—the United States does—that notwithstanding we have entered into a solemn agreement with Canada that this particular spot on the St. Lawrence river shall be kept for all time free and open, we will close it and re-open it in a way that we think is going to be advantageous to us and to them without their consent and without their approval.

Senator Clarke of Arkansas: Why does this subsequent treaty supersede the particular provisions of the Ashburton treaty, so far as they are in conflict?

Mr. Littlefield: Yes; but if your honour please, unless a majority of the Commission agree—

Senator Smith of Michigan: Both treaties were made by England?

Mr. Littlefield: Yes; but unless the Commission agree under this last treaty—

SENATOR SMITH of Michigan: These two treaties are not inharmonious as they stand.

MR. LITTLEFIELD: Yes; the Senator is right about that.

SENATOR SMITH of Michigan: Assuming this to be International water, which of course is admitted, anything that arose by way of controversy that might find its way to this Commission would be adjusted by the Commission, of course, and they would go ahead in their own way without legislative enactment.

MR. LITTLEFIELD: Provided a majority agreed.

SENATOR SMITH of Michigan: Provided a majority agreed.

MR. LITTLEFIELD: And if they divided equally, no result would be reached.

SENATOR SMITH of Michigan: Now, do you contend that this Act of Congress would operate to supersede the effect of the treaty?

MR. LITTLEFIELD: Yes. Do you ask me, now, whether as a legal proposition it can do that?

SENATOR SMITH of Michigan: Yes; as a legal proposition.

MR. LITTLEFIELD: There is no question about it. There are a basketful of authorities that I can present to you. I stated that to Senator Clarke the other day. There is no question but what, under our form of legislation and government, the legislative and treaty-making powers are equal in power and authority, and that the last declaration is the one that governs. A treaty may be negotiated, and if it is inconsistent with previous legislation, the treaty for the time being prevails. If Congress afterwards legislates inconsistently with the treaty, *pro tanto*, for the time being, the legislation supersedes the treaty. I think there is no doubt about that. I know the impression that prevails, and it is natural for us to believe that an international agreement involving public faith and the integrity of the public honour should, of course, control so far as legislative power is concerned; but I think it is well settled, and if you have any doubt about it I can give you authorities. I do not know but the chairman may be familiar with that proposition, but I think it is entirely settled, so that concede, for the purposes of this argument, if the Senator from Michigan pleases, that you have the power to pass legislation—

SENATOR CLARKE of Arkansas: We have not got the power to pass legislation that will authorize any corporation of the United States to invade a single square inch of Canadian territory.

MR. LITTLEFIELD: No; you are right about that. And that is one of the inherent difficulties involved in this controversy, because this goes away beyond the question of a development of power and conservation of navigation. Here is a great people on the other side of this river who are entitled to consideration, and no man sitting in the Senate of the United States would pretend to pass upon these questions

without considering the rights and interests of the people on the other side of this river. Especially under present conditions, when such vigorous efforts are being made to create warmer and more fraternal relations, by treaty and otherwise, it is hardly the thing for the Senate of the United States to pass such legislation here, even if it has the power.

SENATOR CLARKE of Arkansas: It is a question of power. We cannot invade the territory of Canada or authorize any corporation to do it.

MR. LITTLEFIELD: Yes.

SENATOR CLARKE of Arkansas: By the passage of a law we cannot do it. Then the question is, Have we done it?

MR. LITTLEFIELD: Yes; but if you will allow me for a moment, the Ashburton treaty goes beyond the principle of law that would be involved—

SENATOR CLARKE of Arkansas: Take this pending reciprocity agreement. It proposes to take effect by means of concurrent statutes, instead of a treaty.

MR. LITTLEFIELD: Yes.

SENATOR CLARKE of Arkansas: Now, what objection can there be to Congress passing any kind of a law it wants to, and submitting it to this tribunal which specifically exercises the authority of Canada, and having it accepted or rejected. What can be the objection to passing legislation that cannot have any effect unless it is so accepted?

MR. LITTLEFIELD: That general suggestion applies in full force to this Bill if the Senate would add to this Bill the clause suggested by Gen. Ernst making this Act inoperative without the consent of Canada.

SENATOR CLARKE of Arkansas: I understand that these parties here understand that the consent of Canada has to be gotten, and that they do not intend to proceed without it.

MR. LITTLEFIELD: Yes; but the joke about it is that they have got their legislation deliberately framed to accomplish the other result.

SENATOR CLARKE of Arkansas: Then, Canada can pass an Act that will authorize the invasion of our territory. Turn it around and look at it from that point.

MR. LITTLEFIELD: If it is a question of physical invasion, of course, I know, so far as physical invasion is concerned, they cannot go over the boundary; but precisely the same thing applies to the Ashburton treaty, because the intention was that both channels should be kept open.

SENATOR CLARKE of Arkansas: There is no conflict here with the terms of the treaty. The proposition is to improve navigation and not interfere with it. The treaty says to keep the channels open. This proposition is to improve navigation.

MR. LITTLEFIELD: Yes; but the proposition is to improve it in accordance with the judgment of one of the contracting parties without reference to the judgment of the other. There is where we got confused on that.

SENATOR CLARKE of Arkansas: That would all go to the question of the manner in which it was done.

MR. LITTLEFIELD: Yes; and I do not have the slightest question, as a legal proposition, that if this legislation passes as it is presented here to the Committee they get the power to create these works south of the boundary line, notwithstanding the Ashburton treaty and without the aid or consent or approval of the Dominion of Canada. Now, why not put that into the Bill? Why have any doubt about it, if your honours please? This is a great body. This is a great question.

SENATOR CLARKE of Arkansas: I think the water in the International channel, or a stream south of the International boundary, is the common property of both, and New York has presumed to exercise her right over her part by selling it. The water has a value outside of its use for navigation, and I think New York has assumed to deal with it on this side of the boundary line, and it may be that Canada will want to deal with it in the same manner on the other side of the boundary, and I do not understand that in granting this permission to improve navigation, even if it results in diverting it from the place where it is now, it is a violation of the treaty.

MR. LITTLEFIELD: Does the Senator take the ground that the southern channel is not within the Ashburton treaty?

SENATOR CLARKE of Arkansas: It is not a question of the channel, if the navigation at that point is kept open for all the purposes to which it was legitimately devoted. If it was at that point confined to one channel it would be better than having two or three.

MR. LITTLEFIELD: If the Senator will excuse me—

SENATOR CLARKE of Arkansas: I understand the channel to mean one channel and not a dozen channels., That is the language and the meaning of it. The channel means where it is mostly used for navigation.

MR. LITTLEFIELD: But the treaty does not read that way. You have the same view I had of it when I was discussing it before the Committee the other morning. The treaty reads:

> It is further agreed that the channels in the river St. Lawrence, on both sides of the Long Sault islands—

shall be kept open.

Now, mark that. It says on both sides of the Long Sault islands, and there are just two sides of the Long Sault, and there are two streams, running one on one side and one on the other.

SENATOR CLARKE of Arkansas: Both of these islands are on American territory and subject to American legislation. Nobody can raise that objection except the American citizens.

MR. LITTLEFIELD: My point is this, that in the Ashburton treaty the United States saw fit to agree that those two channels—

SENATOR CLARKE of Arkansas: These things are provided for in a contract for the benefit of the American people, and they can waive it and call this thing off for the benefit of the American people. Canada has nothing to do with that channel on the south side, so long as the International channel is kept open so that their commerce can pass.

MR. LITTLEFIELD: Was it not competent for Lord Ashburton on one part, and—who was the distinguished gentleman who represented us?

SENATOR BURTON: Daniel Webster, was it not?

SENATOR SMITH of Michigan: Daniel Webster.

MR. LITTLEFIELD: Yes, Daniel Webster; was it not competent for them to enter into that treaty? Now, I am very glad to have the Senator call my attention to this.

SENATOR BURTON: Your time has expired, Mr. Littlefield.

SENATOR CLARKE of Arkansas: Give him five minutes on account of my interruptions.

MR. LITTLEFIELD: I have not begun to cover the propositions involved here.

SENATOR BURTON: I think we understand this. Your time has expired.

SENATOR SMITH of Michigan: There is one question I want to inquire about. The question of whether or not this Act should take cognizance of the treaty and of the right of Canada to participate in its determination, raises a very important question. If we do not mention Canada in the Act, and the matter is passed up to the International tribunal and they may finally agree that these works may be constructed with perfect propriety and safety, it seems to me that if the object sought to be attained is one of real value and merit, you would be more apt to accomplish something and get somewhere with an Act that did not mention Canada's rights, although regarding them and respecting them whenever they see fit to raise them, than you would otherwise. I simply think that it operates as a buffer in this Act, if we want to get anywhere.

MR. LITTLEFIELD: Now, does the Senator feel that it would be proper, in the teeth of the Ashburton treaty, for the American Congress to pass legislation that would leave it open and make it possible for a private corporation to erect these works in violation of the contract entered into at that time?

SENATOR SMITH of Michigan: I would not think so were it not for the last International Waterway treaty. I think so far as that attempts to regulate the impounding of the waters, it does make some difference.

MR. LITTLEFIELD: The Senator wants to bear in mind that up to this date the commissioners have divided equally on some of these important questions. They may divide on this. They want this so that in case the Commission do not agree, then development can go on independently of the consent of Canada. I think I have covered that.

SENATOR SMITH of Michigan: If they do not agree, will the matter remain in *statu quo* or will they go on south of the island?

MR. LITTLEFIELD: How is that?

SENATOR SMITH of Michigan: If the International Commission fails to agree, will this work go on south of the island?

MR. LITTLEFIELD: Certainly.

SENATOR SMITH of Michigan: Or will it remain in *statu quo*?

MR. LITTLEFIELD: They can go on if they want to. That is what their Bill provides, that they can go on without any reference whatever to Canada. That is the objection I make to it. If it is not proper for them to proceed except with the consent of the Dominion of Canada, the whole Gordian knot can be solved in a moment by simply putting that provision in the Act. I submit we are more than 21 years old, all of us. This is the Senate of the United States. This is a very dignified body of a very high character. The Senate of the United States does not want to go through legislation that is at any rate uncertain in its character. If there are great rights here to be conserved, and we know what will conserve them, what objection can there be to inserting in the Act language that we know will accomplish the result. My friend says they must get the consent of Canada. Put that language in the Act requiring them to get the consent of Canada. A few words will accomplish it. The language suggested by Gen. Ernst takes care of the whole question.

SENATOR BURTON: Your time has expired.

MR. LITTLEFIELD: I wanted to be heard on the matter of the dangers from ice.

SENATOR BURTON: Have you not discussed that before the subcommittee at a previous hearing?

MR. LITTLEFIELD: I would like now to put in a brief.

SENATOR BURTON: Very well; it will be carefully considered.

ARGUMENT OF HON. GEORGE R. MALBY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

MR. MALBY: Mr. Chairman and gentlemen of the Committee, I myself will take only a few minutes of your time, because I want you to listen afterwards to one or two others.

The channel of the St. Lawrence river at this point is not navigable, except that a boat does undertake to go down these rapids, and it is the most tender piece of navigation in the world which can be said to be navigation at all.

SENATOR CLARKE of Arkansas: Where does the main traffic go?

MR. MALBY: The main traffic goes down the canal. It all goes down the canal except this one boat, which is a passenger boat.

SENATOR CLARKE of Arkansas: That is an excursion boat?

MR. MALBY: Yes.

SENATOR CLARKE of Arkansas: That goes down this channel?

MR. MALBY: Yes. They have undertaken to do it, and they do it, with great danger and some accidents. The South Sault here is at the present time not navigable, except that a raft or two have gone down there, small rafts. I presume that the reason the provision was put in the Ashburton treaty that the channels on both sides of the Long Sault islands and south of Barnhart island should be kept open was because all that water is in the United States.

SENATOR SMITH of Michigan: They did not know where the channel would be?

MR. MALBY: They did not know where the channel would be. But, as a matter of fact, Barnhart island and Long Sault island it was known were the property of the United States, and those two places were specifically mentioned in the Ashburton treaty. And why? Because all the channel was in the United States, and it gave the two contracting parties an equal right to use it. Now, if anybody can stretch their imagination far enough so as to construe that treaty contracted at that time to have meant that neither Great Britain nor the United States should ever improve that navigation by any system, then it seems to me as though the distinguished representative of the United States, Hon. Daniel Webster, must have performed a duty in regard to that matter which he never in his life performed with respect to any other matter. That is all I have to say about that.

Just why my friend Mr. Littlefield makes an appeal so strongly in favour of the Dominion of Canada I am quite at a loss to understand, except he thinks perhaps that it is better to discuss that subject than any other. What is the objection, if the Committee please, if we find any water-power wholly in the United States, to developing it if we can? What can be the real objection?

SENATOR SMITH of Michigan: The only possible objection would be that it would tend to impair or obstruct a waterway that we have agreed to keep open.

MR. MALBY: There is no navigation down there.

SENATOR CLARKE of Arkansas: That does not obstruct it, but makes it better.

MR. LITTLEFIELD: There are 60,000 people who go down that channel every year.

MR. MALBY: Yes, there are people who go down there in that excursion steamer; but there is a plan proposed on the part of this Company involving the expenditure of several million dollars, by which there will be a single lock there.

SENATOR CLARKE of Arkansas: Is it to be free?

MR. MALBY: Yes; it is to be maintained by this Company free. These corners of the river will have to be cut off. The plan put before the Secretary of War gives one single lock down through the South Sault here, 30 to 40 feet deep, and if that is not an improvement of navigation, I do not know what is. Now, if they can do that, why should they not do it? I say they probably would do it, for this reason. The water-power which would be developed here by throwing a dam across here [indicating on map] and not throwing it across there [indicating], would probably be so expensive that the Company would not possibly undertake it. They might or might not. I presume under this Bill they would have the right, if they thought it financially correct, to go across that part because it is in the United States. But what is the objection to it? It improves navigation and costs an immense sum of money. Who would object? This dam was put here [indicating on map] for the purpose of forcing water down through the mouth there which will create a channel down through here 30 or 40 feet deep.

SENATOR CLARKE of Arkansas: Is the Cornwall canal a toll or a free canal?

MR. MALBY: It is a free canal. All Canadian canals are free. And you will see, by making this waterway entirely free it will cut off all of this, going right straight down. The Canadian Government undoubtedly requires another lock here [indicating]. Canada was omitted from this Bill by the Committee without any suggestion from us.

SENATOR BURTON: Now, you concede that the consent of the Dominion of Canada must be obtained before, as you say, any works are constructed. What is the objection to a provision such as that suggested by Gen. Ernst?

MR. MALBY: There is only one objection to it, Mr. Chairman. When I concede that, it is owing to the fact that it appears to be in the Ashburton treaty, if that amounts to anything; that the South Sault is included in that. Now, whether that is so or not, attorneys seem to differ. The opinion, outside of my own, is that the Congress may authorize the construction of this dam without the consent of the Canadian Government.

SENATOR BURTON: If you can do that, is it contemplated, without the consent of the Canadian Government, to put in that dam at the South Sault?

MR. MALBY: I think it is, if it can be regarded as a practicable engineering proposition.

SENATOR BURTON: Then, to that extent, you should modify your statement that the consent of Canada is indispensable.

MR. MALBY: I do not see how the Company could proceed without proceeding with the entire scheme, and if they do—

SENATOR BURTON: You think you can put that in there without the consent of anybody?

MR. MALBY: It is the only thing they can do.

SENATOR SMITH of Michigan: Do the engineers say that the construction of that dam will affect the headwaters in there?

MR. MALBY: What headwaters?

SENATOR SMITH of Michigan: The headwaters up above.

MR. MALBY: A little, but not enough to hurt anything.

STATEMENT OF ARTHUR P. DAVIS

MR. DAVIS: I should like to say we did take advice with regard to the Ashburton treaty and, with all respect to Mr. Littlefield, I think he does not read the English language correctly. The Ashburton treaty says that these channels must be equally free and open, not that they must be open; as free and open to one country as to the other. We submitted that question to the Attorney General of the United States, and that is his opinion. I will simply call your attention to the fact that it has been construed in that manner, because Canada did propose to do, north of the Long Sault island, precisely what we propose to do south of Long Sault island, although that north channel is equally free to the United States as to Canada. Canada went to work and built this canal system, with locks, precisely the same as we could do down here.

SENATOR BURTON: Do you mean by that that they erected any obstruction in the channel, either north or south of Barnhart island?

MR. DAVIS: Certainly; they constructed this dyke out here [indicating on map].

SENATOR BURTON: But where did they construct anything that would interfere with vessels going up and down the channel?

MR. DAVIS: They did not construct anything that would interfere with vessels going up and down the channel, because vessels cannot go up and down, any more than they can in the south channel. They improved navigation and permitted navigation to be equally free to us as to their own vessels. Now we propose to give Canada equally free navigation with our own vessels.

SENATOR CLARKE of Arkansas: You do not regard a canal as an obstruction? I think it is as open with a canal with a lock in it as it is without.

SENATOR BURTON: Is there anything further? Whom else do you wish to be heard?

MR. MALBY: I would like to inquire from the gentlemen of the Committee whether there is any other question which they would like to ask?

SENATOR BURTON: In the consideration of this proposition other questions may arise, but I do not think any suggest themselves to us now.

MR. MALBY: There is one other matter I want to speak of before I sit down, and that is as to the term of the lease here, if you may call it such. It is not a lease. The time here is 99 years. Now, I want to submit to this Committee this legal proposition: I respectfully submit that the Congress of the United States has no legal authority, constitutional or otherwise, to fix in the Bill any limit which modifies the charter granted by a sovereign State, and in particular one of the states which was among the 13 original states.

SENATOR BURTON: We are doing that, right along.

MR. MALBY: I do not know but that we are doing it right along, Mr. Chairman, but I want to respectfully challenge the authority for doing it. The 13 original states existed before the Union.

SENATOR CLARKE of Arkansas: We are not going to decide that question to-day. That is a great big question.

MR. MALBY: Where a state has granted an unlimited charter to do a certain thing, Congress has not the right to modify that charter. Of course, the question of time would be eliminated.

SENATOR CLARKE of Arkansas: The Supreme Court of the United States in a recent case has decided that no obstruction can be placed in a river without the consent of the State, this being the rule prescribed in a provision of the Rivers and Harbours act of 1889.

MR. MALBY: Let me call your attention to this: This is a proposition, in any event, which was made. Of course, this will cost ten or fifteen million dollars to develop it.

SENATOR CLARKE of Arkansas: If you could sell that 500,000 horse-power for $25 per horse-power, it seems to me your income ought to be pretty good on that $10,000,000.

MR. MALBY: There is nothing there but farming country, Senator.

SENATOR CLARKE of Arkansas: Oh, you can transmit electricity 200 miles.

SENATOR SMITH of Michigan: You can transmit it 400 or 500 miles.

SENATOR CLARKE of Arkansas: You can transmit it 200 miles, anyway.

MR. MALBY: There is no market for it there. The record shows that. There are only a few little country towns around there.

SENATOR SMITH of Michigan: In Utah they transmit electricity 400 miles.

SENATOR BURTON: I do not think that is quite pertinent to this discussion.

MR. MALBY: One other thing. Look at section 5. It provides, "that should the works hereby authorized be or become at any time, in the opinion of the Secretary of War and the Chief of Engineers, inadequate," and so forth, they may change it. In other words, the authority to lay down plans and specifications is given to the Secretary of War and the Chief of Engineers. You do not want them and the Commission to have concurrent jurisdiction, do you? That would not be possible. You have got to have the authority, not in the International Waterways Commission, as much as we might think of that Commission—but for the purposes of construction you want the Secretary of War and the Chief of Engineers of the United States.

Now, of what use is a limitation of 99 years when you come to section 7? Section 7 reads:

> That the right to alter, amend, or repeal this Act is hereby expressly reserved, and the United States shall incur no liability because of the alteration, amendment, or repeal thereof.

MR. LITTLEFIELD: I think, Mr. Chairman, that I ought perhaps to have about five minutes on the dangers resulting from jams of ice.

SENATOR BURTON: I think you had better present that in a brief.

MR. MALBY: We shall want to reply, of course.

MR. LITTLEFIELD: I have not been heard a moment on this.

SENATOR BURTON: We will see about that.

STATEMENT OF SENATOR GEORGE T. OLIVER OF PENNSYLVANIA

SENATOR OLIVER: I want to say one word, Mr. Chairman, to the Committee in regard to the extreme importance of action upon this proposition. There is no question before the American people to-day so urgent and insistent as that of the conservation of fuel, whether that fuel comes in the shape of coal underlying our hills or in the shape of water running down our streams. If this project is going to be developed to its fullest extent, developing 500,000 horse-power, it simply means the saving for other purposes and for use in other places where water-power is not available of 500 acres of coal every year. In other words, we are to-day in this country burning up 500 acres of coal every year which might be saved for other purposes and for future generations if this project were put into operation. That is all I have to say, and I urge that as impressing upon the Committee the importance of

getting this thing to work as soon as possible and eliminating non-essential propositions from its consideration.

SENATOR CLARKE of Arkansas: I think you have made a good speech.

SENATOR BURTON: Mr. Littlefield, the Committee feels that there should be an equality in the assignment of time to both sides. You have taken more time now than the advocates of the Bill.

SENATOR CLARKE of Arkansas: He only asked five minutes. Let us compromise with him.

SENATOR BURTON: If that leads to an answer by the other side—

MR. MALBY: If it leads to ice it will.

MR. LITTLEFIELD: I do not want to submit in a brief something that will raise a little different phase of the question without notifying my friends on the other side. I want to state this in five minutes, so that they may have the benefit of that.

SENATOR BURTON: Very well, go ahead.

MR. LITTLEFIELD: Your honours have the photographs here showing conditions in regard to ice. I am going to read a telegram from Sir James P. Whitney, the premier of Ontario, which reads:

TORONTO, ONTARIO, February 7, 1911.

J. WESLEY ALLISON,
Willard Hotel, Washington, D.C.:

My experience and personal knowledge of the locality convince me that the proposed works of the Long Sault Development Co. in the St. Lawrence river must cause ice jams, the consequence of which will certainly be heavy damages to property, and in all probability loss of life on the Ontario side of the river. I do not believe that any man familiar with the locality for the last 30 years will doubt my statement.

J. P. WHITNEY
Premier of Province of Ontario

Now, I just want to say briefly this: Section 6 of the Bill pending before the Committee concedes that there is danger from ice jams as the result of this construction, and it concedes further that the parties constructing the works should pay the damages caused thereby. It provides for the filing of a bond of $500,000. I want to state this, that in my judgment the section in not adequate for that purpose. If it is once conceded that these dangers are likely to occur, and these injuries are likely to be done, and that the Company is properly responsible therefor, then I simply say that it is incumbent upon the Congress to put such a provision in that Bill as will take care of all the damages and see that they are properly paid; and now I am going to suggest this section in lieu of the one you have. I will say that their Bill is subject to the provisions of the waterways act. That waterways act provides that people shall be responsible for all overflow caused. The damage re-

sulting from ice jams in the winter season would hardly be within the scope of the overflow, and that confines it to private property. The Government of Canada has large investments along on the Canadian side. There should be a provision in the Bill in regard to this. They concede there is danger and that they ought to pay for injuries caused. I suggest the following language:

> SEC. 6. The authority conferred by this Act is conferred upon the express condition that the Long Sault Development Company, its successors and assigns, shall assume, become liable for, and pay all damages that may be sustained by any person, firm, corporation, or Government upon both sides of the river, by reason of any overflow, ice jams, or other causes produced by the erection, maintenance, or operation of said dam or dams, and a right of action in favour of such person, firm, corporation, or Government so sustaining damages is hereby given against said Long Sault Development Company and its successors and assigns, and all damages thus sustained are hereby made a first lien upon all the property of said Company, its successors and assigns.

That is simply for the purpose of adequately protecting anybody who may be injured. Our judgment is that injuries vast in their character and immense in their size will be sustained by both persons and property. They concede that they ought to pay if they do the damage. Therefore we say there should be a provision in the Bill amply covering it, so that whoever may be injured by these things will have an adequate remedy, without any question, under the statute. I will submit a brief, if your honours please, upon that. I am very much obliged to the Committee for their kindness in relation to this matter.

MR. MALBY: I only want to say that that provision was put into the Bill by the Rivers and Harbours Committee against our consent and against our earnest protest and against what we regard as the highest authorities. It is there, and we have not said anything about it. It seems to me as though that was a matter that Congress did not have anything to do with. Under the laws of the state of New York if anybody puts an obstruction in a stream by way of a dam they are liable. You need not put anything in the Bill to create a liability; they are liable. I take it that is the law throughout the land. If they put a dam in here which has a tendency to flood this land and destroy property, they are responsible for it. They cannot get out of it. It does not seem to me it is necessary to have Congress do something that they have not a right to do.

MR. LITTLEFIELD: I will submit under my brief, if I receive them in time, two affidavits in regard to ice conditions in the St. Lawrence river.

MR. MALBY: Of course we can show that, so far as ice conditions are concerned, they would be vastly improved.

(At 12.15 o'clock p.m. the sub-committee adjourned.)

MEMORANDUM IN OPPOSITION TO THE BILL

Submitted by C. E. LITTLEFIELD

As indicating the character of the opposition to the legislation, we submit an extract from a statement of Sir Wilfrid Laurier, in the House of Commons of the Dominion Parliament, February 2, 1911, as follows:

> When we heard of this Bill being introduced at Washington we put ourselves into communication with the British ambassador to remonstrate; and correspondence is going on now upon the subject. * * *
>
> MR. REID (Grenville): Did I understand the prime minister to say that he had already protested to British Ambassador Bryce against the passage of this Bill in Washington?
>
> SIR WILFRID LAURIER: We made representations; yes.

Also the following:

[First].

Hon. CHAS. E. LITTLEFIELD,
New Willard Hotel, Washington, D.C.

We, the undersigned, acting for our respective organizations, ask that you enter our respectful protest before the Committee on Commerce of the United States Senate against the passage of the pending Bill in the interest of the Long Sault Development Co.

JAS. J. GUERIN
Mayor of Montreal

ROBT. W. REFORD
First Vice-President Board of Trade

FRED C. LARIVIERE
La Chambre de Commerce

L. E. GEOFFRION
Acting President Harbour Commissioners

J. H. SHERRARD
Vice-Chairman Canadian Manufacturers' Association

H. LAPORTE
President Montreal Citizens' Association

ANDREW A. ALLAN
President the Shipping Federation of Canada

L. L. HENDERSON
Montreal Transportation Co.

GEORGE CAVERHILL
Richelieu & Ontario Navigation Co.

[Second]

Hon. Chas. E. Littlefield,
New Willard Hotel, Washington, D.C.

Please present our respectful protest to the Senate Committee on Commerce against the pending legislation of the Long Sault Development Co. We have been navigating the St. Lawrence river for 64 years, using the channels which these works will obstruct. We have a large and growing traffic on this route, and the obstruction of the Long Sault rapids will not only deprive us of one of the greatest attractions of our route, but owing to delay, break the continuity of our service, forcing us to miss our connections, seriously jeopardizing our business, and materially affect our earnings. We further protest that the proposed works constitute a direct infringement of article 7, Ashburton treaty.

RICHELIEU & ONTARIO NAVIGATION CO.
C. J. Smith, *General Manager*

[Third]

Sir: I beg to say that the council of this board notes with surprise the statement made before the Rivers and Harbours Committee in the House of Representatives on H.R. 14531 by Mr. Leighton McCarthy, of Toronto, representing the Long Sault Development Co., or the Aluminum Co. of America, inferring that this board had withdrawn its opposition to the scheme for damming the Long Sault rapids, which statement was evidently made with a desire to give the impression that the non-appearance of the Montreal Board of Trade before that Committee was on account of their objections having been satisfied.

I am, therefore, directed by the council to say that the Montreal Board of Trade holds exactly the same opinion as it has done all along in regard to this matter; the council regrets that it could not be present in person to lay before the said Committee of the House of Representatives its objections to the Bill, but after weighing the matter fully it decided that as a public Canadian body it would not be right for them to appear before that Committee without a formal invitation, and that it was a matter to be arranged between the United States Government and the Canadian Government. Moreover, it was understood that the Dominion Government had made due representations regarding this matter through the British Embassy. You are, however, at full liberty to state through your counsel the stand that the Montreal Board of Trade takes in this matter, which is as follows:

1. Navigation interests must be paramount.

2. That in event of any works being constructed in an International channel, that these works should be constructed, owned, and controlled for all time by the respective Governments.

3. That in the event of the development of water-powers on an International waterway there shall be a proper division of the power, and that the construction of the works shall be such that each country shall be able to develop the full quota of power to which it is entitled in its own territory.

4. That in the event of constructing new canals and locks that same shall be built in Canadian territory where the channel now is, and not on the New York State side.

I am, sir, your obedient servant,

GEO. HADRILL
Secretary

J. WESLEY ALLISON, Esq.

[Fourth]

J. WESLEY ALLISON, Esq.,
New Willard Hotel, Washington, D.C.

DEAR SIR: I beg to send you herewith copy of resolution with regard to the proposed damming of the St. Lawrence river at or near the Long Sault rapids, passed by the Montreal executive committee of the Canadian Manufacturers' Association at a meeting on February 24, 1910. I would ask you to place this on record:

"*Resolved*, That as the St. Lawrence river is the great International waterway between Canada and the United States at the point where the Long Sault Development Co. propose to build a dam, the Montreal executive committee of the Canadian Manufacturers' Association places itself on record as being strongly opposed to any part of this river being allowed to pass into the hands of a private corporation."

Yours, faithfully,

H. T. MELDRUM
Montreal, Secretary

[Fifth]

Moved by Mr. Hilliard, seconded by Mr. Nash:

That this council desires to reaffirm its unalterable opposition to any proposition to dam the St. Lawrence river, and especially the proposition now before the Congress of the United States of America, to dam the said river at Long Sault rapids, and we do hereby authorize J. Wesley Allison to protest against any such scheme.

Carried.

I, Fred R. Chalmers, clerk of the municipality of the village of Morrisburg, hereby certify that the foregoing is a true and correct copy of resolution passed by the council of the above corporation at a regular meeting held January 17, 1911.

Given under my hand and the seal of said corporation this 18th day of January, A.D. 1911.

F. R. CHALMERS

[Sixth]

In connection with the discussion of the Long Sault and other water-power schemes, at the last meeting of the Dominion Marine Association, held in Montreal, January 20, 1911, the following resolution was passed:

"*Resolved*, That we recommend that all improvements or changes in navigable waters be made by the Government and solely with a view to the improvement of navigation, and that only such water-powers be developed as can be done without injury to navigation, and that before any further concessions are granted that a comprehensive scheme be developed by the Government."

FRANCIS KING
Secretary Dominion Marine Association

[Seventh]

RE ST. LAWRENCE POWER SCHEME

J. WESLEY ALLISON, Esq.,
New Willard Hotel, Washington, D.C.

DEAR SIR: The board of control has taken up the question of a Bill now before Congress, allowing the damming of the Long Sault channel, and can not put too strongly the objection felt by this community to the passing of the Bill. As we understand it, certain water-routes will be changed, if not entirely cut off, and navigation even in other channels very seriously interfered with.

The board of trade of this city, as well as boards of trade of Montreal and several other places of importance in the Dominion of Canada, strongly protest against any privilege being given for a work of this character. If a detailed statement of our objections would be of any service to the Committee having charge of the Bill, we should be very glad to have the opportunity of putting the same before the Committee.

Yours, very truly,

G. R. GEARY, K.C.
Mayor, City of Toronto, Canada

Senate Bill 10558 is clearly intended to authorize the construction of dams in the St. Lawrence river by the Long Sault Development Co., south of the boundary line, without the consent of Canada.

It is true that Congressman Malby in his opening statement to the sub-committee said, in answer to a question by the chairman, as follows:

THE CHAIRMAN: You concede that for the construction of these works the consent of the Canadian Government is necessary?

MR. MALBY: Absolutely essential, sir. There will be no work done in the United States of America unless Canada consents. This is one job, Mr. Chairman, or it is nothing.

And at the end of the hearing, in answer to another question from Chairman Burton, of the sub-committee, he admitted that the Bill did authorize the construction of the work without the consent of Canada, as appears by the following:

THE CHAIRMAN: If you can do that, is it contemplated, without the consent of the Canadian Government, to put in that dam at the South Sault?

MR. MALBY: I think it is, if it can be regarded as a practicable engineering proposition.

While this makes it unnecessary to elaborate that proposition it is important, in order that the significance, that phase of the question, may be fully understood, to briefly state the situation in the record. Article VII of the Ashburton treaty reads as follows:

> It is further agreed that the channels in the river St. Lawrence on both sides of the Long Sault islands and of Barnhart island; the channels in the river Detroit, on both sides of the island Bois Blanc, and between that island and both the American and Canadian shores; and all the several channels and passages between the various islands lying near the junction of the river St. Clair with the lake of that name, shall be equally free and open to the ships, vessels, and boats of both parties.

The contention is that when any change is made in the channels covered by this treaty a fair and proper construction of its provisions, having regard to the subject-matter and the language of the treaty requires that Canada should be consulted and its approval obtained. In harmony with this position, H. R. 14531, introduced December 14, 1909, in the House of Representatives, and upon which a five days' hearing before the Rivers and Harbours Committee was held, provided that the work should be "completed within 15 years from the date of the passage of this Act, or from the date of the consent of the proper authorities of the United States of America and the Dominion of Canada to the construction of said works," and further provided that the Act should "not be construed as authorizing said Company, its successors or assigns, to construct said dams, canals, locks, and other works until such consent and approval shall be obtained," clearly recognizing the fact of the impropriety of proceeding with works upon the American side without first obtaining the consent of Canada.

This Bill was referred to the International Waterways Commission for their opinion and was returned with a report, (Appendix B, International Waterways Commission, Progress Report) dated March 11, 1910, in which the Canadian section did not join.

In the report upon the question of joint action between the two countries, the American section, O. H. Ernst, Brig. Gen., United States Army, retired, George Clinton, and E. E. Haskell, said:

> It is, of course, impracticable for the legislature of the two countries to act simultaneously. One must act in advance of the other, but if any law which the first may pass shall contain the proviso that it shall become operative only after the approval of the other, co-operation in legislation will be secured.
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> * * * * * * * *
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> The Bill referred to us seems to recognize the necessity of co-operation between the two Governments, but it does so in a vague way and is much less explicit than it should be. A separate section should be introduced, worded as follows:

"SEC. —. This Act shall not become operative until the Government of the Dominion of Canada shall signify to the Secretary of the State of the United States its consent to the construction of such dam and other structures: *Provided*, That if said consent be not given within two years from the date of this Act, then this Act shall be null and void."

The only provision that is contained in S. 10558 that can in any way be said to relate to or contemplate joint action upon the part of the Dominion of Canada and the United States is section 2, which provides:

SEC. 2. That said Long Sault Development Co., its successors and assigns, shall be subject to the provisions of the treaty between the United States and Great Britain relative to the boundary waters between the United States and Canada, proclaimed by the President of the United States on the thirteenth day of May, nineteen hundred and ten.

It will be observed that it does not make the operation of the Act contingent upon the approval of the Commission, but simply subjects the act "to the provision of the treaty." The provision of the treaty with reference to the action of the International Waterways Commission is found in the last paragraph of article 8 of the treaty, and reads as follows:

The majority of the commissioners shall have the power to render a decision. In case the Commission is evenly divided upon any question or matter presented to it for decision, separate reports shall be made by the commissioners on each side to their own Governments. The High Contracting Parties shall thereupon endeavour to agree upon the adjustment of the question or matter of difference, and if an agreement is reached between them, it shall be reduced to writing in the form of a protocol, and shall be communicated to the commissioners, who shall take such further proceedings as may be necessary to carry out such agreement.

It will be observed that this provision does not accomplish any result unless the majority of the Commission "render a decision." If the Commission is evenly divided, they simply report to their respective Governments, and in that case the "High Contracting Parties endeavour to agree upon an adjustment."

If, however, they do not agree, no adjustment is reached, and, so far as the action of the Commission is concerned, it stands precisely as it did when it was submitted to them, without accomplishing anything by way of a determination on the part of the Commission. The significance of these provisions is obvious when attention is called to the fact that H. R. 14531 is the Bill that was before the International Waterways Commission, and the Canadian section declined to join in the report approving it. That Bill contained a specific provision requiring the consent of the Canadian Government. S. 10558 contains no such provision, and it is, therefore, a moral certainty that the Can-

adian section would decline to approve of its provisions, as it is very much less favourable to Canada than H. R. 14531, upon which they have already passed.

It is, therefore, obvious that S. 10558, if it goes before the International Waterways Commission, will simply result in a divided Commission and will leave the Bill precisely as it stood before a reference to the Commission. The specific provisions of the Act itself will then become operative, and they are found in section 1, and as to the point, read as follows:

> That the Long Sault Development Co., a corporation organized under a law of the state of New York, entitled "An Act to construct, maintain, and operate for navigation, water-power, and other purposes for a period of ninety-nine years a dam or dams in so much of the St. Lawrence river as lies south of the International Boundary line between the United States of America and the Dominion of Canada, near Long Sault, Barnhart, and Sheek islands, either independently or in connection with like works now erected or to be erected in o much of said river as lies north of said International Boundary line.

So that we have not only the admission of Congressman Malby that it is proposed to construct the works without the consent of Canada; but the specific language of the proposed legislation itself clearly demonstrates that purpose. Upon this branch of the Bill the question is,—will this Committee recommend legislation which is distinctly in opposition to the careful and deliberate recommendation of the unanimous American section of the International Waterways Commission which has been devoting its time for the last six years to an investigation of all the questions involved in the navigation of the St. Lawrence river?

This is an International proposition. The interests and rights of Canada and its citizens are to be seriously affected. Their section of the International Waterways Commission did not feel at liberty to concur with the American section upon a Bill that submitted the whole proposition for the approval of the Dominion of Canada. Here is a proposition distinctly in opposition to the recommendation of the American section.

Whether or not action upon the part of Congress that is much more unfavourable and is entirely inconsistent with the recommendation of the American section of the International Waterways Commission, would or not tend to promote friendly relations between the United States and Canada would hardly seem to require discussion.

[Second]

The ice jams caused by the damming of the river would place the country above in great jeopardy.

Upon this point we beg leave to refer in the first instance to the suggestions contained in the memorandum submitted before the Rivers and Harbours Committee on H. R. 14531. Upon the dangers to be apprehended from the ice jams, the statement of Mr. Kennedy, an experienced engineer, will be found at pages 110 to 113 of the House hearings, and the statement of Capt. James H. Logan, a man of large experience upon the river, may be found in the hearings at pages 840 to 843. In addition to this, the following telegram has just been received from Sir James P. Whitney, premier of Ontario, Canada:

> J. Wesley Allison,
> *Willard Hotel, Washington, D.C.:*
> My experience and personal knowledge of the locality convince me that the proposed works of the Long Sault Development Co. in the St. Lawrence river must cause ice jams, the consequence of which will certainly be heavy damages to property and in all probability loss of life on the Ontario side of the river. I do not believe that any man familiar with the locality for the last 30 years will doubt my statement.
>
> J. P. WHITNEY
> *Premier of Province of Ontario*

The injury that would be caused to persons and property by the ice jams which would inevitably be precipitated by the construction of the dams as proposed can hardly be exaggerated.

The danger from floods if the Government allows these dams to be constructed is a very serious one. The backwater caused by obstructing the natural flow of the river will greatly lessen the effective heads on many of the existing power plants above the Long Sault. Some engineers have, it is true, given an opinion that there is no probability of such damage being sustained. On the other hand, the opinion of the residents along the shore and of the most experienced navigators and observers is apparently almost unanimous in holding that the probability of serious damage is very strong. With all respect to the engineers who have given their opinions, it is submitted that the question is not an engineering problem, and that no data exists for the information of a reliable engineering opinion. No engineer can tell where and how ice will be forced when in our rigorous climate the flow of a mighty river like the St. Lawrence is interfered with.

It is on record that in past years great damage from floods and ice jams has been sustained for many miles upstream and on both sides of the river, caused by large areas of ice swinging across some portion of the stream. The annual occurrence of ice jams in this 40-mile stretch of open water between lake St. Francis (a short distance below the Long Sault rapids) and Ogdensburg is only prevented by the swiftness of the current, keeping this section of the river open and quickly carrying away the continuous flow of ice cakes and slush, with which this

part of the St. Lawrence is filled during the winter months. It is true that at present all this ice accumulates in lake St. Francis and that even with its width of 6 miles it has become an almost yearly event to have the lower portion of the city of Cornwall flooded and its power plant forced to close down. That the effect of a dam across the outlet of the open stretch above the dam of the river is to slacken the current above is readily admitted; but how to prevent the ice in this slowed current from bridging, or how to hinder the vast amount of ice from accumulating in front of the dam instead of in lake St. Francis as it now does, is a problem that has never been solved. The Company propose to maintain ice breakers. To anyone who has knowledge of the great difficulties encountered by electric companies in northern waters when dealing with the anchor ice in the fore-bay screens the proposition is simply ludicrous. To handle in a channel all the anchor and other ice that forms with incredible rapidity under certain conditions of weather, is a practical impossibility, and shows that they are either grossly ignorant of the difficulties, or do not care. All the residents along the shores know the effect of a stoppage—ever so slight—in the flow of this mighty stream. Under favourable circumstances, and in the early part of the season, those memorable jams of 1879, 1887, and 1905, when the water raised 12 feet above the normal at Morrisburg, a distance of 10 miles above Farran Point, the location of the ice bridge, will be surpassed, but to what extent no human being is able to foretell.

All the scientific world knows of the investigations and means employed to break open the jams in the Niagara river, and everyone has heard of the strenuous but unsuccessful efforts put forth by the Canadian Government to keep free the lower St. Lawrence of its ice and maintain an open channel. The damage incurred by the jamming of the channel below the lower rapids (Coteau, Cascades, and Lachine) and that often taking place in Montreal harbour, gives a faint idea of the responsibility entailed in arresting the flow of the rapids at the Long Sault. The possible temporary total stoppage of the flow of the river as a consequence of the works contemplated is a contingency which can not be said to be impossible or remote. From past experiences we believe that the force of the flood incurred by the recent overflowing of the river Seine in France would be nothing as compared to the power of the much greater volume of water that would overrun the shores of the St. Lawrence if any obstruction in this river were allowed.

The significance of these facts is recognized by S. 10558, section 6, which reads as follows:

> SEC. 6. That the Long Sault Development Company shall execute a bond obligatory on itself, its successors and assigns, with good and solvent sureties in the sum of five hundred thousand dollars, payable to the United States, for the use and benefit of the

riparian and other landowners in and along the St. Lawrence river conditioned to pay all damages that may accrue to them, or any of them, by reason of overflow, ice jams, and other causes produced by the erection or maintenance of said dam or dams, and the work of construction shall not commence until said bond is executed and approved by the Secretary of War and deposited in the War Department.

S. 10558, while it is identical with the Bill reported by the Rivers and Harbours Committee of the House, appears before the Senate Committee as an original proposition, and it is to be taken, as we understand it, as it stands, without any qualification or limitation. Section 6 proceeds upon two hypotheses; first, that the damage apprehended from ice jams caused by the erection of the dams is a real one, and, second, that it is a damage that the Long Sault Development Co. should be held legally responsible for. This being the case, there can be no question but that all parties damaged or injured by the acts of the Long Sault Development Co. should be paid such damages as they sustain thereby. While the damages to be apprehended for its jams are so great as to prohibit the erection of any dams, if they are to be authorized, adequate protection against injury should be provided by the Act.

Section 6, in our judgment, is not adequate for that purpose. The limit of $500,000 in the bond suggests the inference that that is the extent of the damage to be paid by the Company, whereas the Company should pay all damages caused by its acts. The section confines the liability to "the use and benefit of the riparian and other land owners," which obviously is much too narrow to cover all persons who might sustain damage, because ice jams such as have already occurred have not only injured riparian and land owners, but individuals and personal property. Jams such as are not only possible but probable are likely to not only injure persons and property, but to destroy life as well.

While S. 10558 is made subject to the provisions of the dam Act approved June 23, 1910, that Act, with reference to damage inflicted, is not sufficiently broad to cover the situation here. That Act provides, in section 3, "that the persons constructing, maintaining or operating any dam," shall be liable for any damage that may be inflicted thereby upon private property either by overflow or otherwise. "Here the Dominion and Provincial Governments are the owners of large amounts of property upon the Canadian side, as well as important and very extensive public works, such as canals, upon which they have spent millions of dollars, all of which are liable to serious injury by ice jams."

The language of the Act ought to be so definite and certain that it would cover all persons injured and eliminate all doubt as to the

liability of the Company. We, therefore, suggest in the place of section 6, the following section as only adequate to accomplish these purposes:

> SEC. 6. The au hority conferred by this Act is conferred upon the express condition that the Long Sault Development Company, its successors and assigns, shall assume, become liable for, and pay all damages that may be sustained by any person, firm, corporation, or government upon both sides of the river, by reason of any overflow, ice jams, or other causes produced by the erection, maintenance, or operation of said dam or dams, and a right of action in favour of such person, firm, corporation, or government so sustaining damages is hereby given against said Long Sault Development Company and its successors and assigns, and all damages thus sustained are hereby made a first lien upon all the property of said Company, its successors and assigns.
>
> The Long Sault Development Company, its successors and assigns, shall not commence the work of construction herein authorized until it executes as additional security a bond obligatory upon itself, its successors and assigns, with good and solvent securities in the sum of five hundred thousand dollars, payable to the United States, to be approved by the Secretary of War and deposited in the War Department for the use and benefit of all persons, firms, corporations, or governments that may sustain damage as aforesaid.

The latter part of section 6 is practically a paraphrase of section 6 of the Bill and requires the security to be filed provided for by said section. In addition to this, we think the following section should be added to the Bill:

> SEC. 7. Upon the failure of the Long Sault Development Company, its successors and assigns, to comply with any of the provisions of this Act, to pay the expenses provided for in section 5 and damages as provided for in section 6, this Act shall be void, and the rights hereby conferred shall cease and be determined, and in such case said Long Sault Development Company, its successors and assigns, shall have no right to recover compensation from the United States for anything that it may have done.

This section, it will be observed, is precisely in line with the recommendation of the American section of the International Waterways Commission, as will be seen upon page 13 of the International Waterways Commission, Sixth Progress Report.

The American section recommends the following proviso to be added to H. R. 14531, which was submitted to them:

> *Provided*, That in case the said Company shall at the time violate any of the provisions of this Act, or fail to comply with the directions of the Secretary of War or the Chief of Engineers, or with any conditions or regulations which may be imposed by the International Waterways Commission, with the approval of the Secretary of War, or with any conditions or regulations which may

be made pursuant to any agreement between the United States and Great Britain on behalf of the Dominion of Canada, the President of the United States may declare the said right of user forfeited and so much of said dam or dams and their approaches and of said bridges as lie south of the boundary shall thereupon become the property of the United States, free and clear of said right of user.

With reference to all the other public considerations involved in the pending legislation we beg leave to refer to the memorandum filed before the Rivers and Harbours Committee.

APPENDIX XXI

BILL H. R. 22950*

PRESENTED IN THE UNITED STATES HOUSE OF REPRESENTATIVES, 62ND CONGRESS, SECOND SESSION APRIL 6, 1912, BY MR. G. R. MALBY. A BILL TO PROVIDE FOR THE IMPROVEMENT OF NAVIGATION IN THE ST. LAWRENCE RIVER, AND FOR THE CONSTRUCTION OF DAMS, LOCKS, CANALS, AND OTHER APPURTENANT STRUCTURES THEREIN AT AND NEAR LONG SAULT, BARNHART, AND SHEEK ISLANDS

BE it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Long Sault Development Company, a corporation organized under a law of the state of New York, entitled "An Act to incorporate the Long Sault Development Company, and to authorize said company to construct and maintain dams, canals, power-houses, and locks at or near Long Sault island for the purpose of improving the navigation of the Saint Lawrence river and developing power from the waters thereof, and to construct and maintain a bridge, and carry on the manufacture of commodities," which became effective May twenty-third, nineteen hundred and seven, its successors and assigns, be, and they hereby are, authorized to construct, maintain, and operate for navigation, water-power, and other purposes dam or dams in so much of the Saint Lawrence river as lies south of the International Boundary line between the United States of America and the Dominion of Canada, near Long Sault, Barnhart,and Sheek islands, either independently or in connection with like works now erected or to be erected in so much of said river as lies north of said International Boundary line, with a bridge or bridges and approaches thereto, and a lock or locks, a canal or canals, and other structures appurtenant thereto: *Provided*, That such dam or dams, lock or locks, canal or canals, and other structures appurtenant thereto, except as herein otherwise provided, shall be constructed, maintained, operated, modified, or removed in all respects subject to and in accordance with the provisions of the Act entitled "An Act to amend an Act entitled 'An Act to regulate the construction of dams across navigable waters,' approved June twenty-third, nineteen hundred and ten"; *Provided fur-*

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*This Bill was referred to the Rivers and Harbours Committee. It was not reported from the Committee before March 4, 1913, and therefore has expired automatically.

ther, That such bridge or bridges and approaches thereto, except as herein otherwise provided, shall be constructed, maintained, operated, modified, or removed in all respects subject to and in accordance with the provisions of the Act entitled "An Act to regulate the construction of bridges over navigable waters," approved March twenty-third, nineteen hundred and six.

SEC. 2. That said Long Sault Development Company, its successors and assigns, shall be subject to the provisions of the treaty between the United States and Great Britain relative to the boundary waters between the United States and Canada proclaimed by the President of the United States on the thirteenth day of May, nineteen hundred and ten.

SEC. 3. That said Long Sault Development Company shall submit to the proper authorities within one year from the date of the passage of this Act its plans for the works hereby authorized, and the works in the channel south of Long Sault island shall be commenced within one year and completed within six years from the date of approval by the proper authorities of said plans and works, and all of the works hereby authorized shall be completed within fifteen years from the date of approval by the proper authorities of said plans and works; and in case of failure to comply with the conditions of this section this Act shall be void and the rights hereby conferred shall cease and be determined.

SEC. 4. That if said Long Sault Development Company, or any other company or companies acting with it in such development, shall develop power by the construction of works a part of which shall be located north of the International Boundary line, at least one-half of the power generated shall be delivered in the United States: *Provided*, That when in the opinion of the Secretary of War and the Chief of Engineers, use cannot be found in the United States for the full share thus assigned to this country the surplus may be temporarily diverted to Canada, but shall be returned to the United States when in the opinion of said officers it is needed.

SEC. 5. That should the works hereby authorized be or become at any time, in the opinion of the Secretary of War and the Chief of Engineers, inadequate to accommodate or an interference with the navigation of that portion of the Saint Lawrence river affected thereby, said Company, its successors or assigns, shall, under the supervision of the Secretary of War and the Chief of Engineers, make adequate provision for the accommodation of navigation; and should said Company, its successors or assigns, fail so to do, the United States Government shall, under the supervision of the Secretary of War and the Chief of Engineers, do anything required to make such provision for navigation, and the expense thereof shall constitute a debt of said Company, its successors or assigns, and a lien upon all its property. And should said Company,

its successors or assigns, fail to maintain or operate its dam or dams, lock or locks, with such appurtenances thereto as may be necessary for navigation, in such a manner as to adequately provide for navigation, the United States Government may, under the supervision of the Secretary of War and the Chief of Engineers, assume jurisdiction and control over the maintenance and operation thereof; and in case the said Company or its successors or assigns shall discontinue the use of the said dam or dams and works necessary for navigation connected therewith, then the sole ownership therein, together with the necessary land and approaches appurtenant thereto, shall vest in the United States so far as the same may be located within the territory of the United States.

SEC. 6. That the right to alter, amend, or repeal this Act is hereby expressly reserved, and the United States shall incur no liability because of the alteration, amendment, or repeal thereof.

APPENDIX XXII

GENERAL DAM LAWS

ENACTED BY CONGRESS OF THE UNITED STATES. BEING, PUBLIC NO. 262, 29TH CONGRESS, FIRST SESSION, AND PUBLIC NO. 246, 61ST CONGRESS SECOND SESSION. THESE ARE THE LAWS REFERRED TO IN BILLS INTRODUCED ON BEHALF OF THE LONG SAULT DEVELOPMENT COMPANY

Public—No. 262

An Act to regulate the construction of dams across navigable waters

BE it enacted by the Senate and House of Representatives of the United States of Americain Congress assembled, That when, hereafter, authority is granted by Congress to any persons to construct and maintain a dam for water-power or other purposes across any of the navigable waters of the United States, such dams shall not be built or commenced until the plans and specifications for its construction, together with such drawings of the proposed construction and such map of the proposed location as may be required for a full understanding of the subject, have been submitted to the Secretary of War and Chief of Engineers for their approval, or until they shall have approved such plans and specifications and the location of such dam and accessory works; and when the plans for any dam to be constructed under the provisions of this Act have been approved by the Chief of Engineers and by the Secretary of War it shall not be lawful to deviate from such plans either before or after completion of the structure unless the modification of such plans has previously been submitted to and received the approval of the Chief of Engineers and of the Secretary of War: *Provided,* That in approving said plans and location such conditions and stipulations may be imposed as the Chief of Engineers and the Secretary of War may deem necessary to protect the present and future interests of the United States, which may include the condition that such persons shall construct, maintain, and operate, without expense to the United States, in connection with said dam and appurtenant works, a lock or locks, booms, sluices, or any other structures which the Secretary of War and the Chief of Engineers at any time may deem necessary in the interest of navigation, in accordance with such plans as they may approve and also that whenever Congress shall authorize the construction of a

lock, or other structures for navigation purposes, in connection with such dam, the person owning such dam shall convey to the United States, free of cost, title to such land as may be required for such constructions and approaches, and shall grant to the United States a free use of water-power for building and operating such constructions.

SEC. 2. That the right is hereby reserved to the United States to construct, maintain, and operate, in connection with any dam built under the provisions of this Act, a suitable lock or locks, or any other structures for navigation purposes, and at all times to control the said dam and the level of the pool caused by said dam to such an extent as may be necessary to provide proper facilities for navigation.

SEC. 3. That the person, company, or corporation building, maintaining or operating any dam and appurtenant works, under the provisions of this Act, shall be liable for any damage that may be inflicted thereby upon private property, either by overflow or otherwise. The persons owning or operating any such dam shall maintain, at their own expense, such lights and other signals thereon and such fishways as the Secretary of Commerce and Labour shall prescribe.

SEC. 4. That all rights acquired under this Act shall cease and be determined if the person, company, or corporation acquiring such rights shall, at any time, fail to comply with any of the provisions and requirements of the Act, or with any of the stipulations and conditions that may be prescribed as aforesaid by the Chief of Engineers and the Secretary of War.

SEC. 5. That any persons who shall fail or refuse to comply with the lawful order of the Secretary of War and the Chief of Engineers, made in accordance with the provisions of this Act, shall be deemed guilty of a violation of this Act, and any persons who shall be guilty of a violation of this Act shall be deemed guilty of a misdemeanor and on conviction thereof shall be punished by a fine not exceeding five thousand dollars, and every month such persons shall remain in default shall be deemed a new offense and subject such persons to additional penalties therefor; and in addition to the penalties above described the Secretary of War and the Chief of Engineers may, upon refusal of the persons owning or controlling any such dam and accessory works to comply with any lawful order issued by the Secretary of War or Chief of Engineers in regard thereto, cause the removal of such dam and accessory works as an obstruction to navigation at the expense of the persons owning or controlling such dam, and suit for such expense may be brought in the name of the United States against such persons, and recovery had for such expense in any court of competent jurisdiction; and the removal of any structures erected or maintained in violation of the provisions of this Act or the order or direction of the Secretary of War or Chief of Engineers made in pursuance thereof may be enforced by

injunction, mandamus, or other summary process, upon application to the circuit court in the district in which such structure may in whole or in part, exist, and proper proceedings to this end may be instituted under the direction of the Attorney General of the United States at the request of the Chief of Engineers or the Secretary of War; and in case of any litigation arising from any obstruction or alleged obstruction to navigation created by the construction of any dam under this Act, the cause or question arising may be tried before the circuit court of the United States in any district in which any portion of said obstruction or dam touches.

SEC. 6. That whenever Congress shall hereafter by law authorize the construction of any dam across any of the navigable waters of the United States, and no time for the commencement and completion of such dam is named in said Act, the authority thereby granted shall cease and be null and void unless the actual construction of the dam authorized in such Act be commenced within one year and completed within three years from the date of the passage of such Act.

SEC. 7. That the right to alter, amend, or repeal this Act is hereby expressly reserved as to any and all dams which may be constructed in accordance with the provisions of this Act, and the United States shall incur no liability for the alteration, amendment, or repeal thereof to the owner or owners or any other persons interested in any dam which shall have been constructed in accordance with its provisions.

SEC. 8. That the word "persons" as used in this Act shall be construed to import both the singular and the plural, as the case demands, and shall include corporations, companies, and associations.

Approved, June 21, 1906.

Public—No. 246

An Act To amend an Act entitled "An Act to regulate the construction of dams across navigable waters," approved June twenty-first, nineteen hundred and six.

BE it enacted by the Senate and House of Representatives of the United States of America in Congress assembled: That the Act entitled "An Act to regulate the construction of dams across navigable waters," approved June twenty-first, nineteen hundred and six, be, and the same is hereby, amended to read as follows:

"SECTION 1. That when authority has been or may hereafter be granted by Congress, either directly or indirectly or by any official or officials of the United States, to any persons, to construct and maintain a dam for water-power or other purpose across or in any of the navigable waters of the United States, such dam shall not be built or

commenced until the plans and specifications for such dam and all accessory works, together with such drawings of the proposed construction and such map of the proposed location as may be required for a full understanding of the subject, have been submitted to the Secretary of War and the Chief of Engineers for their approval, nor until they shall have approved such plans and specifications and the location of such dam and accessory works; and when the plans and specifications for any dam to be constructed under the provisions of this Act have been approved by the Chief of Engineers and by the Secretary of War it shall not be lawful to deviate from such plans or specifications either before or after completion of the structure unless the modification of such plans or specifications has previously been submitted to and received the approval of the Chief of Engineers and of the Secretary of War: *Provided,* That in approving the plans, specifications, and location for any dam, such conditions and stipulations may be imposed as the Chief of Engineers and the Secretary of War may deem necessary to protect the present and future interests of the United States, which may include the condition that the persons constructing or maintaining such dam shall construct, maintain, and operate, without expense to the United States, in connection with any dam and accessory or appurtenant works, a lock or locks, booms, sluices, or any other structure or structures which the Secretary of War and the Chief of Engineers or Congress at any time may deem necessary in the interests of navigation, in accordance with such plans as they may approve, and also that whenever Congress shall authorize the construction of a lock or other structures for navigation purposes in connection with such dam, the persons owning such dam shall convey to the United States, free of cost, title to such land as may be required for such constructions and approaches, and shall grant to the United States free water-power or power generated from water-power for building and operating such constructions: *Provided further,* That in acting upon said plans as aforesaid the Chief of Engineers and the Secretary of War shall consider the bearing of said structure upon a comprehensive plan for the improvement of the waterway over which it is to be constructed with a view to the promotion of its navigable quality and for the full development of water-power; and, as a part of the conditions and stipulations imposed by them, shall provide for improving and developing navigation, and fix such charge or charges for the privilege granted as may be sufficient to restore conditions with respect to navigability as existing at the time such privilege be granted, or reimburse the United States for doing the same, and for such additional or further expense as may be incurred by the United States with reference to such project, including the cost of any investigations necessary for approval of plans and of such supervision of construction as may be necessary in the interests of the United States: *Provided further,*

That the Chief of Engineers and the Secretary of War are hereby authorized and directed to fix and collect just and proper charge or charges for the privilege granted to all dams authorized and constructed under the provisions of this Act which shall receive any direct benefit from the construction, operation, and maintenance by the United States of storage reservoirs at the headwaters of any navigable streams, or from the acquisition, holding, and maintenance of any forested watershed, or lands located by the United States at the headwaters of any navigable stream, wherever such shall be, for the development, improvement, or preservation of navigation in such streams in which such dams may be constructed.

"SEC. 2. That the right is hereby reserved to the United States to construct, maintain, and operate, in connection with any dam built in accordance with the provisions of this Act, a suitable lock or locks, booms, sluices, or any other structures for navigation purposes, and at all times to control the said dam and the level of the pool caused by said dam to such an extent as may be necessary to provide proper facilities for navigation.

"SEC. 3. That the persons constructing, maintaining, or operating any dam or appurtenant or accessory works, in accordance with the provisions of this Act, shall be liable for any damage that may be inflicted thereby upon private property, either by overflow or otherwise. The persons owning or operating any such dam, or accessory works, subject to the provisions of this Act, shall maintain, at their own expense, such lights and other signals thereon and such fishways as the Secretary of Commerce and Labour shall prescribe, and for failure so to do in any respect shall be deemed guilty of a misdemeanor and subject to a fine of not less than five hundred dollars, and each month of such failure shall constitute a separate offence and subject such persons to additional penalties therefor.

"SEC. 4. That all rights acquired under this Act shall cease and be determined if the person, company, or corporation acquiring such rights shall, at any time fail, after receiving reasonable notice thereof, to comply with any of the provisions and requirements of the Act, or with any of the stipulations and conditions that may be prescribed as aforesaid by the Chief of Engineers and the Secretary of War, including the payment into the Treasury of the United States of the charges provided for by section one of this Act: *Provided*, That Congress may revoke any rights conferred in pursuance of this Act whenever it is necessary for public use, and, in the event of any such revocation by Congress, the United States shall pay the owners of any dam and appurtenant works built under authority of this Act, as full compensation, the reasonable value thereof, exclusive of the value of the authority or franchise granted such reasonable value to be determined by mutual agreement between

the Secretary of War and the said owners, and in case they can not agree, then by proceedings instituted in the United States circuit court for the condemnation of such properties: *And provided also*, That the authority granted under or in pursuance of the provisions of this Act shall terminate at the end of a period not to exceed fifty years from the date of the original approval of the project under this Act, unless sooner revoked as herein provided or Congress shall otherwise direct: *Provided, however*, That this limitation shall not apply to any corporation or individual heretofore authorized by the United States, or by any State, to construct a dam in or across a navigable waterway, upon which dam expenditures of money have heretofore been made in reliance upon such grant or grants.

"SEC. 5. That any persons who shall fail or refuse to comply with the lawful order of the Secretary of War and the Chief of Engineers, made in accordance with the provisions of this Act, shall be deemed guilty of a violation of this Act, and any persons who shall be guilty of a violation of this Act shall be deemed guilty of a misdemeanor and on conviction thereof shall be punished by a fine not exceeding five thousand dollars, and every month such persons shall remain in default shall be deemed a new offense and subject such persons to additional penalties therefor; and in addition to the penalties above described the Secretary of War and the Chief of Engineers may, upon refusal of the persons owning or controlling any such dam and accessory works to comply with any lawful order issued by the Secretary of War or Chief of Engineers in regard thereto, cause the removal of such dam and accessory works as an obstruction to navigation at the expense of the persons owning or controlling such dam, and suit for such expense may be brought in the name of the United States against such persons and recovery had for such expense in any court of competent jurisdiction. Said provision as to recovery of expense shall not apply wherever the United States has been previously reimbursed for such removal; and the removal of any structures erected or maintained in violation of the provisions of this Act or the order or direction of the Secretary of War or the Chief of Engineers made in pursuance thereof may be enforced by injunction, mandamus, or other summary process, upon application to the circuit court in the district in which such structure may, in whole or in part, exist, and proper proceedings to this end may be instituted under the direction of the Attorney General of the United States at the request of the Chief of Engineers or the Secretary of War; and in case of any litigation arising from any obstruction or alleged obstruction to navigation created by the construction of any dam under this Act the cause or question arising may be tried before the circuit court of the United States in any district in which any portion of said obstruction or dam touches.

"SEC. 6. That whenever Congress shall hereafter by law authorize the construction of any dam across any of the navigable waters of the United States, and no time for the commencement and completion of such dam is named in said Act, the authority thereby granted shall cease and be null and void unless the actual construction of the dam authorized in such Act be commenced within one year and completed within three years from the date of the passage of such Act.

"SEC. 7. That the right to alter, amend, or repeal this Act is hereby expressly reserved as to any and all dams which may be constructed in accordance with the provisions of this Act, and the United States shall incur no liability for the alteration, amendment, or repeal thereof to the owner or owners or any other persons interested in any dam which shall have been constructed in accordance with its provisions.

"SEC. 8. That the word 'persons' as used in this Act shall be construed to import both the singular and the plural, as the case demands, and shall include corporations, companies, and associations. The word 'dam' as used in this Act shall be construed to import both the singular and the plural, as the case demands."

Approved, June 23, 1910.

APPENDIX XXIII

UNITED STATES FEDERAL ACT

To Regulate the Construction of Bridges Over Navigable Waters. Public No. 65. Approved, March 23rd, 1906. This is the Law referred to in Bills introduced on behalf of the Long Sault Development Company

An Act to regulate the construction bridges over navigable waters

BE it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That when, hereafter, authority is granted by Congress to any persons to construct and maintain a bridge across or over any of the navigable waters of the United States, such bridge shall not be built or commenced until the plans and specifications for its construction, together with such drawings of the proposed construction and such map of the proposed location as may be required for a full understanding of the subject, have been submitted to the Secretary of War and Chief of Engineers for their approval, nor until they shall have approved such plans and specifications and the location of such bridge and accessory works; and when the plans for any bridge to be constructed under the provisions of this Act have been approved by the Chief of Engineers and by the Secretary of War it shall not be lawful to deviate from such plans, either before or after completion of the structure, unless the modification of such plans has previously been submitted to and received the approval of the Chief of Engineers and of the Secretary of War.

Sec. 2. That any bridge built in accordance with the provisions of this Act shall be a lawful structure and shall be recognized and known as a post route, upon which no higher charge shall be made for the transmission over the same of the mails, the troops, and the munitions of war of the United States than the rate per mile paid for the transportation over any railroad, street railway, or public highway leading to said bridge; and the United States shall have the right to construct, maintain, and repair, without any charge therefor, telegraph and telephone lines across and upon said bridge and its approaches; and equal privileges in the use of said bridge and its approaches shall be granted to all telegraph and telephone companies.

Sec. 3. That all railroad companies desiring the use of any railroad bridge built in accordance with the provisions of this Act shall be

entitled to equal rights and privileges relative to the passage of railway trains or cars over the same and over the approaches thereto upon payment of a reasonable compensation for such use; and in case of any disagreement between the parties in regard to the terms of such use or the sums to be paid all matters at issue shall be determined by the Secretary of War upon hearing the allegations and proofs submitted to him.

SEC. 4. That no bridge erected or maintained under the provisions of this Act shall at any time unreasonably obstruct the free navigation of the waters over which it is constructed, and if any bridge erected in accordance with the provisions of this Act shall, in the opinion of the Secretary of War, at any time unreasonably obstruct such navigation, either on account of insufficient height, width of span, or otherwise, or if there be difficulty in passing the draw opening or the draw-span of such bridge by rafts, steamboats, or other water craft, it shall be the duty of the Secretary of War, after giving the parties interested reasonable opportunity to be heard, to notify the persons owning or controlling such bridge to so alter the same as to render navigation through or under it reasonably free, easy, and unobstructed, stating in such notice the changes required to be made, and prescribing in each case a reasonable time in which to make such changes, and if at the end of the time so specified the changes so required have not been made, the persons owning or controlling such bridge shall be deemed guilty of a violation of this Act; and all such alterations shall be made and all such obstructions shall be removed at the expense of the persons owning or operating said bridge. The persons owning or operating any such bridge shall maintain, at their own expense, such lights and other signals thereon as the Secretary of Commerce and Labour shall prescribe. If the bridge shall be constructed with a draw, then the draw shall be opened promptly by the persons owning or operating such bridge upon reasonable signal for the passage of boats and other water craft. If tolls shall be charged for the transit over any bridge constructed under the provisions of this Act, of engines, cars, street cars, wagons, carriages, vehicles, animals, foot passengers, or other passengers, such tolls shall be reasonable and just, and the Secretary of War may, at any time, and from time to time, prescribe the reasonable rates of toll for such transit over such bridge, and the rates so prescribed shall be the legal rates and shall be the rates demanded and received for such transit.

SEC. 5. That any persons who shall fail or refuse to comply with the lawful order of the Secretary of War or the Chief of Engineers, made in accordance with the provisions of this Act, shall be deemed guilty of a violation of this Act, and any persons who shall be guilty of a violation of this Act shall be deemed guilty of a misdemeanor and on conviction thereof shall be punished in any court of competent juris-

diction by a fine not exceeding five thousand dollars, and every month such persons shall remain in default shall be deemed a new offense and subject such persons to additional penalties therefor; and in addition to the penalties above described the Secretary of War and the Chief of Engineers may, upon refusal of the persons owning or controlling any such bridge and accessory works to comply with any lawful order issued by the Secretary of War or Chief of Engineers in regard thereto, cause the removal of such bridge and accessory works at the expense of the persons owning or controlling such bridge, and suit for such expense may be brought in the name of the United States against such persons; and recovery had for such expense in any court of competent jurisdiction; and the removal of any structures erected or maintained in violation of the provisions of this Act or the order or direction of the Secretary of War or Chief of Engineers made in pursuance thereof may be enforced by injunction, mandamus, or other summary process, upon application to the circuit court in the district in which such structure may, in whole or in part, exist, and proper proceedings to this end may be instituted under the direction of the Attorney General of the United States at the request of the Secretary of War; and in case of any litigation arising from any obstruction or alleged obstruction to navigation created by the construction of any bridge under this Act, the cause or question arising may be tried before the circuit court of the United States in any district which any portion of such obstruction or bridge touches.

SEC. 6. That whenever Congress shall hereafter by law authorize the construction of any bridge over or across any of the navigable waters of the United States, and no time for the commencement and completion of such bridge is named in said Act, the authority thereby granted shall cease and be null and void unless the actual construction of the bridge authorized in such Act be commenced within one year and completed within three years from the date of the passage of such Act.

SEC. 7. That the word "persons" as used in this Act shall be construed to import both the singular and the plural, as the case demands, and shall include municipalities, quasi-municipal corporations, corporations, companies, and associations.

SEC. 8. That the right to alter, amend, or repeal this Act is hereby expressly reserved as to any and all bridges which may be built in accordance with the provisions of this Act, and the United States shall incur no liability for the alteration, amendment, or repeal thereof to the owner or owners or any other persons interested in any bridge which shall have been constructed in accordance with its provisions.

Approved, March 23, 1906.

APPENDIX XXIV

CONDITIONS

Pertaining to the St. Lawrence River Between Prescott and Cornwall, and the Effect of Damming the River at the Foot of the Long Sault Rapids*

A DELEGATION from Morrisburg and vicinity, including Reeve J. H. Meikle, Councillors R. E. Gibson and Irwin Hilliard, and Capt. W. J. Murphy, J. Wesley Allison, Morrisburg; Reeve M. J. Casselman, of Williamsburg, and Reeve C. E. Cameron, of Iroquois, went to Ottawa on Wednesday to enter their protest on behalf of the residents of this district in opposition to the proposed damming of the St. Lawrence at the Long Sault. They were received at 11.30 a.m., by the Rt. Hon. Sir Wilfrid Laurier and Hon. George P. Graham, who gave them an hour's attentive hearing. The delegation presented many strong and entirely new features to the Ministers, showing why this proposition to dam the St. Lawrence should not be permitted, or even considered. Several memorials were left with them, the first being that of the town of Morrisburg; one signed by the reeve of Iroquois and the reeve of Williamsburg township, which represented the farmers between Prescott and Mille Roches along the St. Lawrence. Another was signed by Capt. Murphy, a river captain for over forty years, and a man who knows all the shoals, currents of the river and the ill effects of ice jams, while another was signed by Capt. Logan, of Waddington, N. Y.

In order that our readers may know how keenly the people of this district feel towards this proposition, we give the memorials that were left with the Government:

To the Honourable Sir Wilfrid Laurier, and the Members of the Dominion Cabinet:

Honourable Sir,—

Whereas the Municipal Council of the village of Morrisburg and the people living along the St. Lawrence river, in the county of Dundas, view with serious alarm the vigorous steps the parties in charge of the Long Sault Development scheme are taking to induce the Government

*This is the testimony of Canadian interests opposing the proposed Long Sault dam. It is reprinted from *The Leader*, of Morrisburg, issues of January 27, February 3, and February 17, 1910.

Looking Down-stream from Foot of Farran Point Canal; Showing North Channel Blocked with Ice

Looking Up-stream, Foot of Farran Point Canal, Showing North Channel Blocked with Ice

of the Dominion of Canada to pass such legislation as will enable them to dam the St. Lawrence at or near the foot of the Long Sault rapids.

By past and bitter experience such people have learned of the dangers of an abnormal rise in the waters of the river St. Lawrence,

During the years 1879, 1887 and 1905, ice dams were formed across the river St. Lawrence near the village of Farran Point. This became blocked by the piling up of frazil ice and caused the river to rise twelve to thirteen feet at Morrisburg. The damages resulting from such high water and floating ice shoving over the land were, amongst others, destruction of dwelling houses, barns and outbuildings, trees, telegraph and telephone poles.

By reason of the rise in the river as aforesaid, the water-powers of the Williamsburg canal were wiped out. Under leases from the Government of the Dominion of Canada, being numbered respectively 8513, 13815 and 16110, the corporation of the village of Morrisburg have contracted and acquired thirty-five horse-power to run their waterworks system, put in at an expenditure of thirty-five thousand dollars ($35,000).

250 horse-power to run their electric lighting system, erected and equipped at an expenditure of thirty-five thousand dollars.

750 horse-power to run their electric power plant, which has cost the said corporation seventy-five thousand dollars.

Besides the foregoing, there is the water-power under lease to certain individuals.

Your memorialists are satisfied that the damming of the Long Sault will cause such a rise in the river as to utterly obliterate the practical use for commercial purposes of the aforesaid water-powers, and we strongly protest against any change being made in the natural flow of the river by your Government that will prevent your Government from fulfilling its contracts under said lease.

The direct result of damming the river at the Long Sault will be to slow up the current of the river west of said dam, and cause larger quantities of frazil ice to form, which will cause dams to be formed in the river and cause the same to rise and back up over the land and destroy much property.

We believe the scheme has directly for its object the granting to capitalists who must of necessity sell their product in a foreign country. If the Long Sault should be utilized for power purposes, it should be retained until such time as the population of our country would warrant the use of that power in our own country for manufacturing purposes. At the present time there is not sufficient need of that developed power in our country. Montreal and Ottawa are more than fully supplied. If that power be once developed and taken to the United States, it

will never be brought back, and our share of that magnificent heritage and birthright will be gone forever.

We also fear that the matter of the Long Sault development is entirely different from power at Niagara Falls, in that it would be a joint development, and would in fact, if not in theory, be under the control of the stronger and wealthier partner. Again, it would necessitate the placing of our shipping under the control of a foreign Government, the larger canal being within the territory of the United States, and hence we believe that in time the whole scheme would lead to serious International complications, and it should be our earnest desire to strictly avoid the originating of causes for such complications, and

Finally, for mere commercial purposes to enrich capitalists, why should the scenic beauty of our noble St. Lawrence be destroyed?

This memorial was signed and sealed by the village clerk.

THE FOLLOWING MEMORIAL, SIGNED BY THE REEVE OF THE VILLAGE OF IROQUOIS AND THE REEVE OF WILLIAMSBURG TOWNSHIP, WAS PRESENTED:

On behalf of the people of Dundas residing between Mille Roches and Prescott, we respectfully but most vigorously enter our protest against the proposed scheme of damming the St. Lawrence at the Long Sault by the St. Lawrence Power Company.

Aside from the general Canadian sentiment, which is widespread, and which has been repeatedly expressed from various parts of the country, there are very many tangible reasons to be advanced against the undertaking.

Naturally, the strongest feeling of animosity towards the scheme exists in those communities lying along the river itself. This was more evident as a whole some months ago, when the subject was first brought to the attention of the public; but we are sorry to see one or two of the larger towns (as for instance, Brockville) have become not only lukewarm in their opposition, but actually favourable to the scheme. This change has been brought about by a vigorous propaganda carried on through the local papers, which apparently have very suddenly experienced a decided change of opinion with regard to the project. This change has been attributed to various reasons by various people, but without casting too much reflection on their sincerity, we feel justified in saying that many of the inducements held out by the papers on behalf of the Company, are not only quite vague, but entirely impracticable.

The inducement of cheap power was offered to Morrisburg as well as to Prescott, Brockville, etc.; but we were and are more dubious than they of the fulfilment of the promise, for various reasons; among

these reasons the statement of several experts who declare it would not pay the St. Lawrence Power Co. to erect and maintain a transmission line to these points for the comparatively insignificant amount of power required; but that the company will transmit the great bulk of their power to New York, where it can be delivered *en bloc.*

But, in addition to this, the fact must not be overlooked that the towns and farm lands east of Prescott are liable to serious damage from the raising of the water, which will occur. In the case of the town of Morrisburg, for instance, we have good reason to fear that the raise of water would flood the tail races of their municipal power plants, and destroy their docks, etc., as at present, according to Government survey, 1896, the water at the foot of the Morrisburg canal is only 10.85 feet above level of water in river at head of Cornwall canal.

To what length the water will be backed up at Morrisburg by the proposed dam, even the best of expert engineers are unable to calculate. To illustrate this, we beg leave to quote Professor Mansfield Merriman, of Lehigh University, one of the greatest authorities on hydraulics, and the author of several works which have become standard among engineers:

> "When a dam is built across a channel, the water surface is raised for a long distance up stream. This is a fruitful source of contention and accordingly many attempts have been made to discuss it theoretically in order to compute the probable increase in depth at various distances back from a proposed dam. None of these can be said to have been successful, except for the simple case where the slope of the bed of the channel is constant and its cross-section such that its width may be regarded as uniform, and the hydraulic radius be taken equal to the depth."

The above conditions mentioned in the exception are a long way from being fulfilled in that stretch of the St. Lawrence river between the site of the proposed dam and Morrisburg. One can hardly imagine a large river more non-uniform in a distance of fifteen miles, than this section, being cut up by numerous islands, the shore line indented by numerous bays, with long projecting points, causing some stretches to be narrow and deep, and others to be quite wide and shallow. A Government chart of this section of the St. Lawrence river, prepared by A. J. Grant, C.E., in 1896, for the Canadian Government, shows a fall of only 10.85 feet in the distance of 15.7 miles from the foot of Morrisburg canal to head of Cornwall canal, or an average fall of 8 inches per mile. Now the Long Sault rapid is practically the outlet of this fifteen-mile stretch of river. If this free outlet causes a fall of 8 inches per mile, then if this outlet is obstructed ever so little, it would cause an ever lessening proportional fall in surface of river for an indeterminate distance back, or in other words a "back-water;" or,

decrease the amount of frazil ice formed by the cold water striking a thin sheet of roughened surface of water, and which now nearly every winter collects to such an extent in lake St. Francis that it floods out the lower portions of the town of Cornwall.

Now, both these cases go to prove that it need not be necessary for a bay to swing out to start an ice blockade in the river; but that either the surface ice in the slack water in front of the dam or the constant stream of floating ice coming up against the dam when the water is going through the sluices and not over, will soon collect in quantities sufficient to completely cover that section of the river for miles upstream.

Again, it is a well-known fact that a power company in our northern climate will spend vast sums in order to obtain a reservoir or forebay in front of its racks large enough, and hence quiet enough to allow the surface to become frozen over and stay in that state most of the winter. What would the Lachine Power Co. give for such a forebay, and what would it be worth to Massena during even the present mild winter?

Therefore, the inevitable conclusion is that the conditions which the engineers of the Company must have for the successful operations of their plant and lock approaches will be the very conditions that will allow in winter time the formation of a continuous sheet of ice above their dams for a considerable distance up-stream.

And as stated above, although these would be the conditions with a dam, and also the ideal conditions for the maintenance and constant operation of their power-plants, they are the very conditions which are sure to lead to the most disastrous results in the formation of large ice jams early in the winter, which will increase to unprecedented dimensions as the season advances.

The following extract from the report of the Montreal Flood Commission will be of interest in showing the points at which ice troubles are in the habit of occurring:

> "The St. Lawrence is a river of such width and depth that notwithstanding the great volume of water which it carries (its low-water discharge above lake St. Peter being 315,000 cubic feet per second), its extreme range between highest and lowest water-marks is only about six feet, or one-tenth that of the Ohio at Cincinnatti. Whenever this range is exceeded, as at Cornwall, Beauharnois and Montreal it is only in winter, and is due to the packing of ice. The river below Montreal is affected by ice from tide-water to the foot of Lachine rapids—a distance of 80 miles—and with the exception of what are called air-holes, the whole surface is covered with ice. But above the Lachine rapids, the winter level is only elevated by ice for a short distance opposite Cornwall and Beauharnois. All the remainder embracing both open water river section and ice covered lake sections, with rare

local exceptions, maintains the ordinary level. The exceptions are where an ice-bridge or jam may occur in the narrower channels above the Cornwall canal in very severe winters, or where a bridge is formed artificially by sawing off enough bordage ice and swinging it across the channel to an island, to give communication to the main land. These bridges do not effect the river levels at that site, but by arresting floating ice, may advance the bridge up-stream to a point where shallower water and a swifter current may cause a pack and form a dam. The open water sections are about 40 miles in length, between Cornwall and Prescott, and about 15 miles between lake St. Francis and lake St. Louis, and about 10 miles between the ice-covered portion of the latter and the foot of the Lachine rapids. There is no case of a permanent winter dam where there is open water immediately below it (as in the case of a gorge at the break-up of the ice), but the permanent winter rise at Cornwall and Beauharnois takes place under the same conditions as that at Montreal, namely, the junction of a river section of open water with one which is closed, or of a strong current with comparatively dead water."

The damage done to the river front in Montreal before the costly protecting wall was built, is well known. Ice-bridges and shoves have been of common occurrence at the Cedar rapids. Cornwall has experienced many floods caused by the accumulation of ice in lake St. Francis.

The surface ice on lake St. Francis only serves to form a bridge and this catches the abundant and incessant flow of slush ice mingled with more or less of detached surface ice. This flow from the swift channel striking the quieter waters of the lake is checked, giving the frazil ice an opportuntiy to cement the larger cakes together, thus adding to the strength of the front of the bridge. Meanwhile the bordage ice, thickened by frost and snow (made heavier by thaws and occasional rain, as well as the filling up underneath by frazil and anchor ice) begins to encroach upon the waterway, causing a gradual rise of the surface. This rise lifts the bordages, and often detaches them from the shore, when in a favourable position, and aided by wind and current, they move down the main channel until arrested by the ice-bridge. Then if there occurs a heavy snow-storm with a wind sweeping the surface of the large bays of their snow (the river at times becomes very nearly impassable in row-boats from this cause) we have a mass which quickly fills any interstices in the floating cakes, and the up-stream march of the ice-bridge becomes very rapid.

Now, with a dam at the Long Sault, all this accumulation will occur in its quiet waters early in the season—depending upon the weather—the bridge will rapidly extend up-stream until it reaches Weaver point, where the width is greatly lessened by the rocky pro-

Fig. 2. Ice Jam at Polly Gut, Cornwall Island

jection, and the current proportionately increased. Here the ice flowing down the river collects against the narrow front of the bridge. At first the floating cakes are often tilted on edge by the current extending some distance both above and below the surface, and all the open spaces are rapidly choked with frazil and floating snow slush. Some of the lower riding cakes of anchor ice with an abundant supply of frazil during favourable conditions, find their way under the surface, but only to rise and become firmly attached to the under-surface when the quieter waters are reached, and hence gradually increasing the thickness of the surface and forming a hanging curtain near the front of the ice-bridge. The jam here grounds on the south shore, and when the water rises to a sufficient height in front, enough pressure is obtained to cause a shove, which naturally takes the same direction as the slope of the river-bed, that is towards the Canadian shore. This occurred in 1887 and 1905. In the former year a brick house was cut down and the occupants barely escaped with their lives. A little further along another house had its lower storey destroyed and the house wrecked. But these shoves only tend to tighten the jam, and a second bridge forms above it, and this proceeds up the river until another narrow portion is found. In 1905 this second bridge extended six miles above Weaver point, or just above Morrisburg, its front running from above Canada island in an oblique line down stream towards the canal bank. Here, fortunately, warmer weather stopped its progress, otherwise a second jam would have been formed, and as the current sets very strongly towards the north shore, the accompanying shove would very likely have sheared off the canal bank, as well as making a wreck of the town's pump-house, and other buildings along the shore.

From navigation charts, the next narrow parts of the river can be easily located as Pine Tree point and Rockway point at Iroquois, where a shove, which must take the same direction as the current, would certainly destroy the low-lying portion of that town.

During the jam of 1879, although the ice did not reach within four miles of Morrisburg, the water ran over the banks of the Morrisburg canal at the head locks above Rapide Plat, so it is well within reason that with an early formation down the river and a severe winter, the water should raise to a far greater extent than it did that year, and easily overcome the fall of 3.36 feet between the head of Morrisburg canal and Iroquois. How much farther this bridge with its jams would proceed up the river no one can tell.

But the history of the last three serious blockades is well known. The oldest inhabitant never heard of a jam in the river till they swung these obstructions at Croil island.

That of 1879 was caused by the swinging of a bay across from Croil island to Baker point, in the north channel, and from head of Croil

island to the American shore on the South side. The ice extended as far as Weaver point, the first narrow part of the river, where a jam occurred, and the shove which followed swept across the low-lands at that point. At this time the water was raised at Morrisburg, a distance of 6 miles up-stream from the front of the bridge to a greater height than that caused by the jam of 1905.

In 1887, the bridge was swung again at Weaver point in the North channel, but across the channel between Chat and Croil islands on the South side. The first jam, as in 1879, occurred at Weaver point, the ice-bridge extending only a short distance above it. The water at Morrisburg was raised 12 feet above normal, and was only prevented from flooding the canal by the placing of flash-boards on the lock-gates at the head. The shove at Weaver point destroyed both a brick and frame dwelling, which were in its path. All the roads along the river and a portion of the farms on the bank of the river, were flooded.

In 1905, the ice-bridge started from the same points as that of 1887, but, this time, the bridge, after forming a jam at Weaver point extended a quarter of a mile above Morrisburg, the front running from the head of Canada island obliquely down stream to the canal bank. At this narrow section of the river the cakes were lying up-ended, many being thrown on top of the bridge and along the shores, others forced and held under the water surface, and a second jam was in the process of being formed. However, the lateness of the season and a period of mild weather prevented the completion with its attending shove.

Between the above years other bridges have occurred at Weaver point, but mild and unfavourable weather caused them to break up before the water was raised to much extent.

Some Effects on Navigation

Next consider some of the detrimental effects of the proposed plans on navigation. The new and improved locks will be situated between the foot of the Long Sault island and the American shore. With this method of overcoming a 47-foot lift in one lockage or even two, will there ever be breakages, with their accompanying disasters, such as have occurred at Sault Ste. Marie?

The channel between Barnhart island and the American shore leading to the proposed site of the locks is intricate, winding, with several cross-currents and strong back eddies, all of which make it very difficult for navigating even the shorter craft, either up or down. Then consider the proposed state of this channel when its main feeder between Long Sault island and Barnhart island is dammed and the South channel is completely shut off with locks and its quiet water approaches. The water will be lowered and will flow swifter, so that it will be impossible to make the points with any ordinary craft.

Every river man knows that the current opposite Cornwall is running swifter than any place in the boat channel between the Cornwall canal and Morrisburg, and it certainly would not be a saving in time to cause a boat to hang in such a current.

Then again, with an ice-bridge extending even as far as Morrisburg, it is doubtful if the river could be cleared of ice, especially the great heavier masses gathered in the swift water, in time for the usual opening of navigation, and certainly would close navigation a month earlier at least, thus cutting off at both ends during the busy season; and, in addition, there is liable to be a much longer delay caused by damage sustained to the canal banks by the ice-shoves accompanying the ice-jams.

With the high water of the past few seasons(and the water of the last two years has had the highest level since 1871) the canal banks have suffered considerably from the wash of the liners as they pass down the channel. Now, with the river dammed, this would be continually occurring, and would be an additional expense to the Government of hundreds of thousands of dollars per annum.

The Cornwall bridge spanning the river and owned by the New York and Ottawa division of the New York Central railway, has a clearance of only 60 feet from the water. Therefore, how will the boats pass under it if they should be forced to take this channel. The R. & O. boats running the rapids have all cut off their spars. When the bridge was built, the engineers decided that the bottom of the river was not suitable for a pier, even if it were practical for a swing span to be operated, and it would certainly be impracticable to increase the height of the bridge sufficiently to give the steamers the necessary head room.

Capt. W. J. Murphy Presented the following Memorial:

That the property owners and citizens of Morrisburg and vicinity should feel strongly over the proposal to dam the Long Sault rapids is very natural, as life-long residents, men of much experience on the river who have watched the operations of its waters winter and summer for long years, and understand its currents, shoals and rapids, are strong in their opinions if this scheme is carried out that the canal and docks at Farran Point and Morrisburg will be submerged, even in summer time. The damage to property not only at Morrisburg, but along the river front for miles up and down as well, could not be estimated.

There is a fall in the river from the head of the Galop rapids to the foot of the Long Sault of some 90 feet, with open water in winter for about 50 miles above the Sault. A succession of rapids occur from the head of the Galop rapids to the foot of the Long Sault. In places the rapids are shallow, and there are narrow stretches at some points; the

banks in winter are piled with snow, and this is continually being drifted into the river, forming slush ice; heavy falls of snow occur, adding to the large flow of slush ice. At narrow points this is jammed together, and checks the flow of the ice. Any obstruction that stops the flow of the current would produce ice jams at these places; ice formed from snow is the worst in case of stoppage. At points near the lower rapids, it becomes solid and grounded on the bottom of the river; the continued flow of ice and snow adds to the mass, and a solid jam is formed. At once a raise of the water occurs above the dam, the heavy bay ice is loosened by the raising of the water, and is added to the already accumulated mass; shoves occur, and the accumulation growing more solid as it continues to be shoved together, should weather conditions continue favourable, this goes on for days, and results in such serious floods as are referred to below. It is a matter of proof that at one time the water raised at Morrisburg during one night 15 to 20 inches. Inquiry made by telephone at Farran Point elicited the reply that there was no jam of ice at that place, A further inquiry at Dickinson Landing being made, it was learned that an ice jam had formed below the Long Sault rapids near Cornwall, of about 20 feet in height, and that this had caused a rise in the water at Dickinson Landing of from 3 to 4 feet.

In 1887, an ice jam formed at Farran Point, and the water rose at Morrisburg 12 feet above normal, so that the water ran over the top of the gates from the river, and boards were put on the top of the gates to prevent the flooding of the canal. At this time the Rapide Plat was smooth water.

At a point opposite Morrisburg, in the state of New York, one-third of a farm was under water, and the owner had to build platforms to keep his cattle out of the water; had the water gone much higher his stock would have been drowned.

At Weaver point, a short distance below Morrisburg, the ice shoved. It carried down a brick house, which caught fire from the stove and was destroyed, the occupants having only time to get out, so sudden did the shove occur. A short distance above, the lower storey of another house was destroyed.

The proposed dam, if built, is sure to decrease the speed of the current and cause the jamming of the ice, the Long Sault being in reality a safety valve for this portion of the river, taking away the ice formed in the swift open water above.

The fact that the serious flood of 1879 was caused by the swinging of an ice-bridge at Farran Point, is positive proof that any obstruction that stops the flow of the ice produces the jams.

Were the proposed dam to be built, there is every reason to think that for some distance at least above the head of the Long Sault there

Fig. 3. Ice Piled Along the Shore after a Winter Ice Shove

would be slack water. This would become frozen across and operate precisely as did the ice-bridge swung at Farran Point in 1879.

The oldest inhabitants now living never heard of an ice jam in the St. Lawrence until ice-bridges were swung.

The ice jam of 1879 did not reach within four miles of Morrisburg, and yet water was higher than in 1905, when the ice jam extended a quarter of a mile above the village. At that time, had a heavy fall of snow occurred, it would have shoved at the foot of the rapids, and carried away the power-house and flume, and might have caused a break in the canal, and no doubt an untold amount of damage would have been done. As it was, the fire at the pumping station was put out under the boiler.

In case the dam is built, the jam would start much earlier in the season, consequently a larger accumulation of ice would be made, and heavy falls of snow for a longer period would cause a more serious flood.

It is said by the promoters, through the press, that much time would be saved in moving passengers and freight by boats using the proposed lock in the dam to be built in American territory. Experienced river men think that, as a matter of fact, the current above Cornwall is so strong that no tow of barges or freight boats could go up to the proposed site of the lock, owing to the channel being crooked and very shallow in places.

APPENDIX XXV

ICE CONDITIONS ON THE ST. LAWRENCE

By

Prof. H. T. Barnes, D.Sc., F.R.S., Director of Physics, McGill University, Montreal

THE freezing of the St. Lawrence river takes place throughout its entire length in very much the same way each year. With the advent of cold weather the temperature of the water falls to the freezing point and ice commences to form over the surface. On account of the current, which averages one mile per hour in the main channel in the wider parts, no ice would form permanently over the surface were it not for the "ice packs" that occur in the narrower parts. From these points of stoppage the ice builds backwards against the current, and soon covers over large areas. Thus, lakes St. Peter, St. Louis and St. Francis freeze over at the lower ends first and gradually spread up stream. Bays and inlets, where the water is comparatively still, contribute to the freezing, and ice is quickly formed. Wind-drifted ice scum has much to do with this first freezing of the river. Much of the river remains open for the entire winter even in the coldest weather, and it is for this reason we have long been familiar with interesting and varied forms of ice.

Since 1895, I have given close attention to the river ice, and have found that it is possible to distinguish three main types. These have long been known to river-men, and possess different names in different places. I shall attempt to describe these forms and the physical conditions giving rise to their formation.

Surface or Sheet Ice

This ice forms over all the wider parts of the river, and usually commences from the accumulation of surface-formed ice, blown by the wind, as scum is blown, into the bays or inlets or narrower parts. An artificial boom, or a ledge of rock will often give strength enough for the surface ice to build back until the sheet extends many miles up stream, covering a current of quickly flowing water.

Once started this surface sheet grows rapidly in thickness at first, and then with increasing slowness by the conduction of heat, through

MAXIMUM EXTENT OF ICE ON RIVER St LAWRENCE

FEBRUARY, 24th 1911

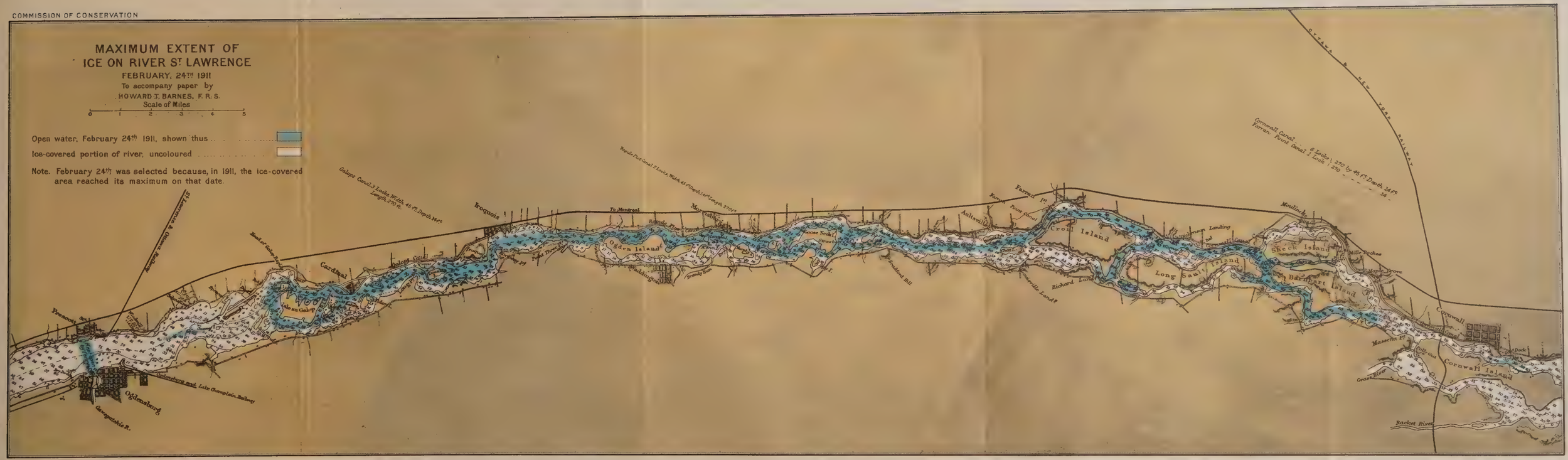
To accompany paper by
HOWARD T. BARNES, F.R.S.

Scale of Miles
0 1 2 3 4 5

Open water, February 24th 1911, shown thus .....

Ice-covered portion of river, uncoloured .....

Note. February 24th was selected because, in 1911, the ice-covered area reached its maximum on that date.


Ogdensburg
Prescott
Cardinal
Iroquois
Morrisburg
Ogden Island
Croil Island
Long Sault Island
Barnhart Island
Sheek Island
Cornwall
Cornwall Island
Racket River
Galops Canal 3 Locks Width 45 Ft Depth 14 Ft Length 270 Ft
Rapids Plat Canal 2 Locks Width 45 Ft Depth 14 Ft Length 270 Ft
Cornwall Canal 6 Locks 270 by 45 Ft Depth 14 Ft
Farran's Point Canal 1 Lock 270 - - - - 14
To Montreal
Ottawa & New York Railway
St Lawrence & Ottawa Railway
Rapide Plat
Point Iroquois
Lake St Lawrence
Lake St Francis
Lake St Louis
Lake St Peter
Lake St Regis
Lake St Claire
Lake St Catherine
Lake St Clair
Lake St Clair
Lake St Clair

the ice, to the cold winter air. I have studied the progress of the growth with great care, and have found that an average thickness of 26 inches of ice forms over most of the St. Lawrence river. Towards the end of the winter, generally about the first of March, the ice reaches its maximum thickness, and then steadily but slowly, grows less, until towards the middle of April it is reduced to about half its thickness. When rotted by the strong sun and warm winds of spring, the ice sheet becomes a mass of vertical ice needles, ready to topple over like a row of bricks, at the slightest displacement. This has given rise to the tradition that, in the spring, the ice sinks, so quickly do the ice needles melt in the warmer underwater, once they have been turned over. My study has shown that a small elevation in the temperature of the water above the freezing point has an important influence on the thickness attained by the ice-sheet during the winter. A small temperature elevation above the freezing point, such as a hundredth of a degree Centigrade, (32 + ·018° F.) will determine the limit to which ice will grow.

Open spaces are often found in the otherwise uniform ice-sheet, covering the lakes of the St. Lawrence. Temperature measurements in these "air-holes" have shown as much as $\frac{5}{100}$ths of a degree above the freezing point, which is sufficient to permanently prevent any surface ice from forming there. The higher temperature is due to a current of water deflected upwards from below.

Surface ice, while it protects the water from the direct action of the wind, also shuts out the warmth of the sun's rays. This is noticed to a marked degree in the spring of the year before the surface ice moves out of the river. While it is observed that the lakes freeze from their lower end upwards, it is also known that they melt and clear from their upper ends downwards. There is a tendency for ice to melt and pack in the lower parts of the river owing to the earlier disintegration in the upper parts, and every year tremendous ice shoves are observed at different places. Fig. 1 shows the Lake St. Louis ice piled up on the guard pier at Lachine, after the movement of the ice in the spring.

There are times when surface ice is of advantage, while circumstances may arise which render an open channel preferable.

If the St. Lawrence channel could be kept open throughout its entire length great advantage would result. All floating ice would be carried down to tide-water and there disposed of, and the average ice production in the river lessened. An earlier opening of navigation would result with the earlier disintegration of the ice in the spring. Whenever an ice-bridge is formed, having open-water conditions above, such as at Lachine, the Cascades, and at Cornwall, the floating ice is stopped and forms an ice-pack. The seriousness of the ice-pack can be more readily appreciated when I have described the second form of ice met with in the river.

Frazil Ice

Frazil is a French-Canadian term for fine, spicular ice, from the French for forge-cinders, which it is supposed to resemble. It is always formed in an open channel, where the current is flowing too swiftly for the border-ice to meet over the surface, and is often called "slush ice." It is partly a surface-formed ice which cannot remain attached and freeze into a surface sheet, and partly a product of the interior freezing of the mass of the water. It occurs in varying degrees of fineness, from plate ice, which forms on a smooth gliding surface, to the finest needle crystals, which are hardly discernible to the eye. Frazil crystals grow in bulk, when carried far in open water.

Artificial frazil ice may be formed by subjecting water to rapid agitation in a cold atmosphere. A tub of water placed out of doors in winter and rapidly stirred, soon turns to slush by the copious growth of these fine crystals. It is safe to say that a long stretch of open water becomes loaded to the bottom with frazil during a period of intense cold and great wind agitation. During such a time the water appears dull in colour, presenting an appearance of being mixed with fine sand. At any time during cold weather, the water may be seen to be carrying numerous fine crystals by withdrawing a sample in a clear glass for inspection. The amount it may contain will depend entirely upon the weather conditions. A dull stormy day with a wind that blows against the current is productive of the greatest amount. This is the result of the surface agitation, together with the rapid extraction of heat. A bright sunny day, although very cold, does not show much frazil formation on account of the absorption of the sun's rays near the surface offsetting the cooling effect of the air. At night, under a clear sky, with wind agitation, a large amount will be formed, depending on the temperature of the air. I have found in the water on an average cold day in winter very fine needle crystals to the extent of about a quarter of a million per cubic foot. During severe weather I have found this number rise to several millions.

It is the frazil ice which causes an open channel to be of so much trouble to engineering operations whenever frost occurs: for, although a surface sheet may be formed lower down, the fine ice is carried far under the surface ice by the currents. Serious changes of level often occur in a river, by the damming up, or complete stoppage of a channel by frazil carried under the surface ice, and building down on both sides of the channel. Great masses of frazil accumulate in the quiet bays by the drifting in of the fine crystals, and their subsequent settling upwards to the under side of the surface sheet. The crystals soon become attached to the surface ice, and attain depths reaching to the bottom of the river: in some cases we have observed a depth of 80 feet.

Fig. 4. An Ice Pack in the St. Lawrence Partly Cut Away by an Icebreaker. Frazil from Below Rises to Fill the Channel

In taking soundings through the ice, the lead may usually be sunk through the masses of frazil, but often these become frozen together so hard as to resist all efforts at penetration. The distance to which frazil ice will be carried depends on the swiftness of the currents, and the amount of open channel above. In the St. Lawrence river, at Montreal, the frazil, generated for the most part in the open water of Lachine rapids and above, is found attached as far as Varennes, twelve miles below. In this case the river is open above the rapids as far as lake St. Louis, a distance of seven miles.

The greatest packing of the ice occurs at Cornwall, where the swift current all the way from Prescott, a distance of over 40 miles, aided by the agitation of the Long Sault rapids, generates tons upon tons of frazil ice. This ice is carried into the wide expanse of lake St. Francis where it meets the quieter waters, and rising to the surface, produces rapid freezing. The ice-bridge once formed causes the stoppage of the ice, and very soon the narrow channels around Cornwall island become choked, and the winter pack begins. A rise of water level at once sets in which causes great upheavals of the ice until a final balance of level is established sufficient to give the water a passage under the ice. From this time onwards, during the winter, a rise and fall of level goes on as additional quantities of ice are carried down from the open water above. Fig. 2 shows the ice pack as it appears in the winter at the upper end of Cornwall island at Polly gut. It should be remembered that this ice pack, which is almost solid up to the end of Barnhart island, is of less extent than it would have been had not the wide expanse of lake St. Francis taken care of the enormous quantity of frazil ice brought down during the greatest ice-producing months of December and January.

During the winter, ice shoves result from the ice-packing, and cause in a few hours, a rise of water level with accompanying floods and deposition of ice along the shore. Fig. 3 shows the result of one of these ice shoves after the water has cleared a passage for itself, leaving huge blocks of ice high and dry along the shore. Fig. 4 shows the character of a small portion of one of the frazil ice-packs on the St. Lawrence. A channel has been cut through the lower end of it by means of an ice-breaker. The ice is standing fully six feet out of the water, buoyed up by the masses of frazil underneath. I have observations of frazil rising twelve or fifteen feet out of the water when liberated by the action of the ice-breakers. Fig. 5 is a photograph of a penstock which has been filled with frazil in a few hours.

Anchor Ice.

The form of ice which has attracted the most attention of all the forms to be met with in nature is that known in this country as anchor

river by heat lost directly to the water. The utmost frost that we have ever observed in water is only ·006 of a degree below freezing, which would have a small influence in cooling the bed directly. Unlike open ground, subjected to extremely cold air, the bed of a river cannot become frozen to any depth.

It is to the radiation of heat from a river, which goes on all the time to the colder air above, that we must look for the main cause of anchor ice. During the daytime, under a clear sky, we have the sun's heat radiated down through the water and offsetting the cooling effect produced by the space radiation; and on a cloudy day we have the radiation checked by the clouds. On a clear night in winter the circumstances are entirely favourable to excessive radiation. It might, at first, appear that there was a much larger amount of heat radiated to the bottom of a river by the sun whose temperature is so high, than is radiated out of the river into space. This is apparently quite true, and, but for the short time during which the sun shines in the winter, and the consequent lessening of the heat which actually reaches the bottom, it is a question whether anchor ice would ever form.

The influence of the sun is everywhere observed in the formation of both frazil and anchor ice: in the former by warming the water and preventing it from becoming under-cooled, and in the latter by loosening the masses of anchor ice and causing them to rise. Frazil is never observed to have a bad effect under a strong sun.

The heat from the sun is effective in melting off the hold which anchor ice has on the bed of a river. A common sight in the early morning after a clear, cold night, when the sun rises, is the appearance of masses of anchor ice. These rise and float down with the current in great quantity. Boatmen are very careful when crossing a river not to go when these masses are rising, from the danger of being surrounded and caught in a mass of anchor ice, and carried down stream into the rapids.

Anchor ice rarely forms under a layer of surface ice. It forms on dark rocks more readily than on light ones, which is in accord with what we know in regard to the more copious radiation of heat from dark surfaces. Anchor ice never forms under a cloudy sky by day or night, no matter how severe the weather, but it forms very rapidly under a clear sky at night. It is readily melted off under a bright sun. It is built up rapidly during very cold weather by the entangled masses of frazil crystals carried in the flowing water.

The growth of anchor ice is very beautiful resembling arborescent forms and the weeds of summer. So hard and thick does it become that it is often difficult to thrust a sounding-rod through it. It is very granular in structure, as is shown by the examination of the masses which rise to the surface. Through clear water the ice appears to have

long tentacles rising up out of the mass. It often has immense power in lifting rocks and boulders up bodily, and many of these are carried down stream attached to irregular masses of ice. The spongy character of adhering frazil crystals causes them to accumulate slime and infusorial growths from the water. A very characteristic colour of these masses is brown. When melted in a vessel the slime settles to the bottom, when it is seen to be of a very fine structure, consisting probably largely of infusorial growth.

Fig. 6 shows a photograph of anchor ice formed in a rapid where, in spite of the swift currents, the ice has formed on the rocks and is building up out of the water. This was the beginning of an ice-bridge which eventually completely blocked the rapid at this point. In Fig. 8 I show a diagram illustrative of the three forms of ice.

Ice Conditions at Long Sault as Affected by the Development of Power

An inspection of the map which I have prepared illustrating the ice conditions as they exist in an average winter in the vicinity of the Long Sault rapids will show the relatively large proportion of the river which remains permanently open throughout the winter.

From Prescott to Goose-neck island we have 18·1 sq. miles of open water and 13·4 sq. miles of ice-covered water. This gives 38 per cent. of the total river area open. From Goose-neck island to Cornwall we find 5·83 sq. miles open and 15 sq. miles covered which includes the great ice pack. There is, therefore, over 28 per cent. of open water in this section of the river. All of this open water is productive of great quantities of frazil and anchor ice throughout the entire winter.

At the present time, Nature constructs an ice dam in the vicinity of Cornwall at a place where the natural conditions are favourable to the minimising of the effect of the ice pack. In the spring, when disintegration takes place, this mass of ice is free to move out into the broad expanse of lake St. Francis. No narrow channel blocks the way for the early opening of the river for navigation. The upheavals caused in other parts of the river when the narrow parts of the waterway become choked with ice in the spring, indicate what effect the introduction of a permanent dam to replace the present ice-bridge would have. The construction of the proposed dams now under consideration would merely carry the ice packs further back into the narrow parts of the river, where the first rush of frazil ice in the autumn would be unable to distribute over the wide area of lake St. Francis. It is true that the raising of the water level by the proposed dams would drown out the main rapids, but this would in no way affect the swift currents above, and would not prevent the winter's accumulation of frazil and anchor ice, over at least 10 square miles of open water, from forming

an ice pack back of the dams. In the spring, all this ice would be held back by the dams until it melted in April, and might seriously delay the opening of navigation through these waters.

No man can determine the serious consequences which might result from introducing these artificial dams in the narrow portions of the river with such an extent of open water above. Nature asserts herself with irresistible force when the struggle between water and ice takes place in so mighty a river as the St. Lawrence.

APPENDIX XXVI

ICE JAMS

In the St. Lawrence River Between Morrisburg and Cornwall, Based on Surveys Made to Locate and Determine the Elevation of Flood Marks Along the River*

I. Dates of Unusual Ice Jams and Floods

THE only floods caused by ice jams between Croil island and Morrisburg were those of 1840, 1879, 1887, 1895, 1898, 1901 and 1905. The flood of 1887 was the worst and that of 1905 the next.

II. Surveys of Ice Floods

In 1904 John R. Freeman directed a survey of ice conditions from Cornwall to the upper end of Long Sault island. In 1907, J. W. Rickey directed a similar survey, from the point where Mr. Freeman left off, to Morrisburg. The results of these surveys are shown on Drawings C-8-X and A-84-M.† The following statements were made by the persons mentioned, to C. W. Judson who executed this latter survey.

Benj. Nichols, U.S. Customs Officer at Louisville Landing, states that until recently nearly all ice gorges have been caused by bays being thrown from Croil island to the north shore near Farran Point. This has been done after a bridge has formed on the south side of Croil island, either by the bay between McLoud point and Duval point swinging from natural causes, or having been swung by people living near by.

Twenty or twenty-five years ago a state law was enacted making it a misdemeanor to swing an ice-bridge at above points. There is now a special deputy appointed each winter, by the sheriff of St. Lawrence county, to prevent the swinging of an ice-bridge.

Mr. Nichols says that these deputies are chosen from people residing along the river near these points, to whom a bridge would give certain advantages, and, as bridges are always swung during the night, the deputies have never yet been known to prevent their being thrown across.

Mr. Cook, collector of Canadian Customs at Aultsville, Ont., says that nine ice jams out of ten are formed by a bridge between

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* This is an *ex parte* statement by J. W. Rickey, Chief Engineer of the Long Sault Development Company, the applicants for permission to dam the Long Sault.

† Drawings not reproduced.

Fig. 7. Artificial Channel in Head Race of a Power Development. Man is Engaged in Scooping Out the Frazil Carried in by the Current

the upper part of Croil island and the north shore, and that nearly all of these are caused by bays being thrown from the Croil Island side.

Mr. Cook states that he knows the bridge of 1887, which caused the highest water known between Aultsville and Morrisburg, was thrown by residents along the river near above point; and that nearly all, if not all, of the smaller ice jams originated in a similar way.

CHAS. WHITTAKER, lock-master at Morrisburg, Ont., states that he has lived at Morrisburg nearly all his life, and that, as a rule, nearly all ice jams have been caused by throwing bays from Croil island to the main shore.

There may have been exceptions to the above, but none to Mr. Whittaker's knowledge.

CHAS. STATA, lock-master at Farran Point, Ont., says that no ice-bridges have been thrown across at this point for fifteen years.

The bridges of 1887 and 1905 were caused by Brown Bay ice swinging out and catching on point just below.

Ice makes out from both sides here, so that the main channel seems no wider than a good sized creek, and bays coming down from above very often hold for a time.

Brown Bay ice usually goes out as often as every week during the winter—this is caused by the rise and fall of the water due to variable winds. (The last above statement is not corroborated. C. W. J.)

If the weather is very cold, ice forms in the bay of sufficient thickness to hold and form a bridge when it swings against the point.

There was very little trouble here until the canal was enlarged. This has so changed the current that the ice at a point below the bay, just east of Farran Point, makes out much farther than formerly, thus causing a bridge to form.

A bridge is often caused by Whalen Bay ice, also the ice of the bay just below Sturgeon shoal, swinging and lodging at the head of Farran Point canal. This also has only happened since the canal has been enlarged.

MR. JERRY WILSON, 3½ miles west of Louisville Landing states that his grandfather, Samuel Warner, moved here about 1790 to 1795. Samuel Warner told Mr. Wilson that the only ice-bridge between the time he moved there and 1879, was a temporary one in 1840.

MR. GEO. W. LAWRENCE, who lives just west of Mr. Wilson, says that there were, according to a written record which he has kept, ice jams in the St. Lawrence river in the winters of 1887, 1895, 1898, 1901 and 1905.

MR. JAMES BRADFORD states that his grandfather moved to Louisville Landing about 1805 and that he had heard his grandfather say repeatedly that the first serious ice jam or bridge occurred in 1879; that, prior to this date, the ice did not "take" opposite Croil island and above it.

The authors of the above statements have all lived along the river for many years and are pre-eminently qualified to give an opinion in the matter.

All floods that endanger Morrisburg are caused by the initial ice-bridge "taking" at Croil island and, from the above statements, it appears:

(*a*) That nearly all the ice-bridges between Croil island and the main shore were *artificially* formed by the riverside inhabitants.

(*b*) That the 1887 flood, the worst on record, was started artificially.

(*c*) That changes in the Farran Point canal have increased the chances of ice jams forming.

III. Discharge of River in February, 1887

The mean monthly discharge of the St. Lawrence in February, 1887, was 250,500 second feet (*vide* Report U.S. Engineers, 1903, page 2877). This February discharge has only been exceeded three times for the period 1860-1906, inclusive, namely:—1865, 257,800 second feet; 1870, 262,000 second feet; 1886, 268,000 second feet. The 1887 conditions present about as severe conditions as may be expected.

IV. Profile of River

The upper curve on Drawing E-146-M* shows the profile of the river surface from Morrisburg to Cornwall, at the crest of the flood in February, 1887; the lower curve shows the profile for open channel conditions, with a river discharge of 255,000 second feet which is about two per cent. more than the discharge in February, 1887.

The upper curve on Drawing E-169-M* shows the profile of the river surface from Morrisburg to the head of Long Sault island, at the crest of the flood in February, 1905. The lower curve shows the river profile for 255,000 second-feet discharge, open channel conditions. The ice flood is not shown east of Long Sault island on this map because the ice flood survey between Cornwall and the head of Long Sault island was made in 1904.

V. Ice Conditions in River, February 1887

In February 1887, there were two ice jams in the river stretch above mentioned. The lower jam was caused by the annual congestion of frazil ice in lake St. Francis; the head of this jam was near the foot of the Long Sault and raised the water to elev. 200 at this point. At the foot

* Drawing not reproduced.

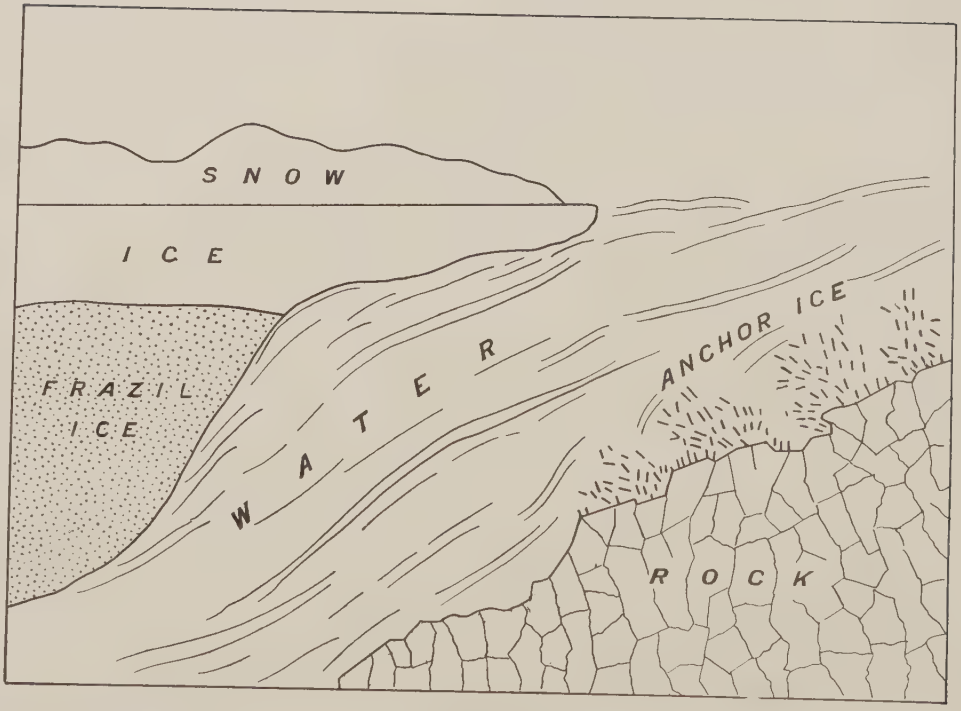

Fig. 8. Ideal Diagram Showing The Characteristics of Sheet, Frazil and Anchor Ice

of Barnhart island the flood level was 30 feet above the normal, open-channel level; this flood level was from 5 to 10 feet higher than the ordinary annual flood.

The upper jam extended from Croil island to Bradford point, a distance of 7 miles. It was started by swinging an ice-bridge, see par. II above. The river channel was blocked with ice as far as Weaver point but the water rose less than 4 feet above normal near the foot of the jam, on the south side of Croil island, while at Weaver point it rose only 6 feet above normal. Between Weaver point and Bradford point the channel was so badly congested that the ice acted almost as a dam, raising the water over 16 feet above normal at Bradford point. From Bradford point to Morrisburg the channel was open in the centre, with ice in the bays along the shore. At Morrisburg the rise above normal was about 12 feet.

The main river channel was open, except for border ice, from the foot of the upper jam, at Croil island, to the foot of the Long Sault. The rapids were practically obliterated by the backwater from the lower jam. Although the flood level was from 18 to 20 feet above normal at the site of the proposed upper dam, or at elev. 200, the backwater rise at lock 21 was less than four feet; and the lower end of Croil island, the backwater rise was less than two feet.

It is a matter of history, that the main river channel north of Long Sault, never becomes congested with ice even when the backwater, caused by the Lake St. Francis ice jam, obliterates the rapids, thereby creating conditions essentially the same as will be created by the proposed dams.

The South Sault channel was so badly congested that very little water was discharged through it. Practically all of the discharge of the river, about 250,000 second-feet, passed in the main channel north of Long Sault island, and south of Barnhart island.

Little River channel was badly congested and discharged very little water.

The extent of these jams is shown on drawing E-146-M.*

VI. Conclusions from Above Facts

From the above it follows that ice jams in lake St. Francis do not cause any serious backwater rise in the open channel of the main river, north of Long Sault island, even when the surface is raised to elev. 200 at the Upper dam site.

The flood at Morrisburg is caused primarily by the initial ice-bridges "taking" between Croil island and the main shores. These ice-bridges

* Drawings not reproduced.

are generally of artificial formation, and if broken up soon after they "take," a jam will not be formed.

If no ice jam forms above Croil island, a winter flood at Morrisburg is most improbable, if not impossible; this statement is based on the river conditions as they have existed for more than 100 years past.

VII. Prevention of Ice Jams in the South Sault Channel

The St. Lawrence River Power Co., kept the South Sault channel open during the winters of 1903-1906 inclusive, even when northwest winds caused practically all of the ice in the entire river to pass down this channel. Before, and after the above date no attempt was made to keep this channel open, and every winter it was badly congested with ice jams. This shows conclusively, that it is practicable to keep the river channels open provided the work is undertaken with properly equipped crews. In like manner it will be possible to keep open the main river channel on each side of Croil island after the proposed dams are built, thereby removing all possibility of ice floods in Morrisburg for all future time.

VIII. Effect of Proposed Dams on River Conditions

If the proposed dams had existed during the 1887 flood, and the river had been maintained at the February 1887 level (viz. elev. 200) at the Upper dam site, the up-river condition would have been unchanged. The open river would have extended to a point opposite Croil island and the surface elevation would have been the same as it was during the flood.

If the upper jam had been allowed to form, under the above conditions, and if it had been allowed to increase, the resulting flood would have been practically the same as existed in 1887. In brief, the existence of the proposed dams during the 1887 flood, would not have altered conditions above them to an appreciable extent. The experience of four consecutive years in breaking up and preventing ice jams in the South Sault channel shows that similar methods, employed breaking the incipient jams at Croil island, would have prevented the 1887, 1905, and other floods.

IX. The February, 1905 Flood

The flood of February 1905, was caused in a manner much like that of 1887. The water did not rise as high as in 1887, but the upper ice jam extended from Croil island to Morrisburg and the jam was so

compact that teams crossed the river on the ice at many points. The profile of the 1905 flood is shown on drawing E-169-M.*

The damage done by these floods is small. The riverside inhabitants know about them and do not build structures near the river. The greatest damage occurs in Morrisburg.

Where the river roads, on both sides of the river, cross the streams that flow into the St. Lawrence, the bridges are but a few feet above the normal water level and when the river is in flood stage these bridges are impassable; the farmers in such cases are compelled to go back to the next road.

No loss of life, due to the floods above mentioned, has ever occurred.

X. Comparison of Present and Future Conditions

Under existing conditions no one is interested in breaking up, or even preventing, ice jams opposite and above Croil island, and the repetition of the 1887 and 1905 floods at Morrisburg may occur any winter. It is not at all improbable that a flood whose effects will be far more disastrous than that of 1887 may occur.

When the proposed dams are built it will be of great importance to the Power Companies from an operating standpoint, to keep the river free from congestion. Crews of men will be stationed at the critical points and the river will be patrolled and kept free from ice jams just as the South Sault channel has been maintained free and open by the St. Lawrence River Power Co.

The construction of the proposed dams will not increase the danger of flood at Morrisburg but the operation of the power-houses, etc., will call for the prevention of ice jams, and in this way the proposed works will reduce to a minimum the risk of flood not only at Morrisburg, but along the river front from Morrisburg to Farran Point.

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* Drawings not reproduced.

APPENDIX XXVII

REPORT

On the Effect in Canadian Waters of a Power-House Built in the Long Sault Channel*

THE effect, in Canadian waters, of a power-house at the foot of the South Sault channel will be almost nil, after the development is completed. During the construction period, however, while the South channel is obstructed by a coffer dam, all the South channel discharge will be diverted to the North channel, and this diversion will raise the level slightly in this latter channel.

The St. Lawrence is probably the best regulated large river in the world, and the variation of its discharge from the mean average is exceedingly small. The ratio of the mean flow to the extreme minimum is only 1.41, and the ratio of the mean flow to the extreme maximum is only 0.71. These ratios are unique and greatly simplify the case under consideration.

The average discharge of the St. Lawrence river is about 255,000 second-feet, at which stage about 48,500 second-feet, or 19 per cent. of the total flow passes through the South channel, and 81 per cent. flows through the North channel. When the total river discharge is less than 255,000 second-feet, proportional discharge in the South channel falls slightly below 19 per cent., and vice versa.

As long as the discharge through the proposed South Sault power-house is the same as would have occurred under present natural conditions, for the varying river stages, it will have no appreciable effect upon the levels or flow in the North channel. Any considerable change in the proportional discharge through the South Sault will affect the levels and discharge in the North channel to some extent, and the effect of such change on navigation is to be determined.

The minimum depth on the sill of lock 21 of the Cornwall canal is 14 feet and it is axiomatic that any greater depth, within reasonable limits, is beneficial to navigation, and it is also true that a depth less than 14 feet should be prevented if possible. This applies only to the navigation season, May to November, inclusive. During the winter season, December to April, inclusive, the depth on the sill at lock 21

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* This is an *ex parte* statement by J. W. Rickey, Chief Engineer of the Long Sault Development Company, the applicants for permission to dam the Long Sault

is immaterial, so long as sufficient water is available for supplying the power-plants along the Cornwall canal.

In determining the effect of the South Sault power-house, the following items must be considered:

I. Present Conditions Along River St. Lawrence

(*a*) Winter season
(*b*) Navigation season

II. Conditions During Construction

(*a*) Winter season
(*b*) Navigation season

III. Permanent Future Conditions

(*a*) Winter season
1. Power-house not in operation
2. Power-house in operation

(*b*) Navigation season
1. Power-house not in operation
2. Power-house in operation

IV. Ice Conditions in General

"Winter Season" means December to April, inclusive;
"Navigation Season" means May to November, inclusive.

This list comprises the possible combinations and the resulting conditions will be considered *seriatim.*

I. Present Conditions Along River St. Lawrence

(*a*) Winter Season:

Every winter the South Sault channel becomes so badly congested by ice jams that the entire flow of water, practically speaking, is shut off and all the water in the river flows through the North Sault channel. The only exception to this occurs when these ice jams in the South channel are prevented by the St. Lawrence River Power Company, and, in such cases, the discharge through the South Sault channel approximates the normal discharge, or is practically 19 per cent. of the total discharge of the St. Lawrence.

The formation of these ice jams causes no damage to property, other than interfering with the supply of water to the Massena Power canal, and the diversion of the water from the south to the north channel occurs without loss or damage of any kind whatsoever. So far as water supply for power along the Cornwall canal is concerned, it is absolutely immaterial whether the South Sault channel is entirely free and open or entirely dammed by ice jams.

(*b*) Navigation Season:

The ice jams in the South channel pass away about April 1st, and, from this date until they form again, about January 1st, the South Sault channel passes approximately 19 per cent. of the total river discharge. The mean discharge of the river at this point is about 255,000 second-feet; at this stage the depth on the sill at lock 21 in the Cornwall canal is about 16.40 feet, or 2.40 feet more than the minimum of 14 feet depth in the St. Lawrence canals. The discharge is about 182,000 second-feet when the depth of the sill of lock 21 is 14·0 feet. For the period 1849 to 1897 inclusive, the least depth on the sill of the new lock 21, (had this lock been in existence during the entire period) would have been 13·75 feet, at which stage the South Sault channel discharged somewhat less than 19 per cent. of the total river flow. Likewise, the greatest depth on the sill at lock 21 would have been 19·34 feet, and the South channel passed somewhat more than 19 per cent. of the total river flow. The exact variation from 19 per cent. is not known, but it is conservative to say that the difference is not great in either direction. The effect of this difference is unimportant, on account of the small ratio of the difference to the total discharge and the large increment of discharge per foot of increase of river surface elevation at lock 21.

II. Conditions During Construction

(*a*) Winter Season:

During the construction of the South Sault power-house, a temporary coffer dam will be built across the South channel, a short distance below the entrance to the Massena canal. This coffer dam will divert to the North channel, all of the water that would otherwise flow through the South channel. During the winter season this will practically reproduce the conditions that occurred almost annually from times prehistoric, when the South channel has been dammed by ice jams and the entire river has flowed in the North channel.

As previously stated, such conditions cause no damage whatsoever to property, and it follows that the construction of a coffer dam across the South channel will cause no material change in the usual North channel winter conditions, either as regards river levels or volume of water.

(*b*) Navigation Season:

The diversion to the North channel, of all the water that now flows through the South channel, will raise the level at lock 21 to a height that corresponds to a river stage that is about 19 per cent. greater than occurs under existing conditions.

Thus, with the South channel coffer dammed and a mean river discharge of 250,000 second-feet, the level at lock 21 will be the same as

would occur, under existing conditions, with a total river discharge of 1·19 x 250,000, or about 297,500 second-feet. The gauge at lock 21 reads 16·25 feet for a mean discharge of 250,000 second-feet, under present conditions, and it will read 17·70 feet at the same stage, with a coffer dam across the South Sault channel. The difference is only about 1 foot 5 inches, a negligible increase, and yet one that will assist boats to a slight degree in leaving and entering the lock.

Sheet 3* shows graphically the highest and the lowest water on the upper sill of lock 21 for the navigation season, May to November inclusive, and from 1849 to 1909 inclusive. This record covers a period of 60 consecutive years and it is safe to assume that it shows practically the extremes that will occur in the future. The data on sheets 2 and 3* enable one to predict the effect, at lock 21, of a coffer dam across the South channel for all river stages.

The extreme daily minimum depth on the upper sill of lock 21 occurred in 1895, when the gauge reading was 13·75 feet, (= 7·33 feet, old lock datum) and the discharge was 175,000 second-feet. Had there been a coffer dam across the South channel, this minimum depth would have been increased to 15·0 feet.

The maximum daily depth occurred in 1862 and 1886, and was 19·34 feet, (= 12·92 feet, old lock datum) with a discharge of 358,000 second-feet. The South channel coffer dam would have raised the level to 21·0 feet on the sill of lock 21, or a rise of 1 foot 8 inches higher than actually occurred. Since the Chicago Drainage canal is diverting from the St. Lawrence watershed about 10,000 second-feet, thereby actually lowering the river level at lock 21 about 0·2 foot at the maximum stage, the estimates are conservative.

The above computations are based on United States Government data.

III. Permanent Future Conditions

(*a*) 1 Winter Season—Power-House not in Operation:

After the South Sault power house is built, and as long as it is not in operation, the conditions in the North channel will be practically the same as have obtained in the past almost every winter, when ice jams in the South channel have diverted all of the water to the North channel as described in paragraph II (*a*), above.

(*a*) 2 Winter Season—Power-House in Operation:

When the power-house is in operation the water will merely be passed through the turbines instead of flowing freely down the South

* Not reproduced.

channel as it does when, occasionally, ice jams do not obstruct and dam this channel, or the channel is kept free and open by the St. Lawrence River Power Company, as was done in the winters of 1905, 1906 and 1909.

Such power-house operation will therefore only produce effects in the North channel that have happened in the past and will happen in the future with the South channel in its natural condition. The proposed power-house will, therefore, not alter present winter conditions to any appreciable extent.

(*b*) 1 Navigation Season—Power-House not in operation:

Adjacent to the proposed power-house will be built a set of large sluice gates capable of discharging upwards of 60,000 second-feet. The power-house will only be shut down at infrequent intervals and any part of the water that would otherwise flow through the South channel can be diverted, as desired, to the North channel, or the entire volume of water that would flow through the South channel, in its natural condition, can there be discharged under the future conditions.

It is thus evident that as long as the power-house is not in operation the proposed development in the South channel will, in effect, provide a huge valve to divert the South Sault channel flow to the North, or to pass it through the South channel, or to divide it between the two as may be desired.

(*b*) 2 Navigation Season—Power-House in Operation:

During the navigation season, when the proposed power-house is in operation, the water that otherwise would have passed through the South channel in its natural state, will be discharged through the turbines for generating electrical power. Any excess water not used for power may either be automatically diverted to the North channel or it may be passed through the sluice gates at the power-house.

The construction and operation of a power-house in the South channel will cause no material change in the volume or height of the water* in the main channel north of Long Sault island, which channel is the International channel.

Finally, the operation of the proposed South Sault power-house will not affect, to any appreciable extent, the amount of water east of Long Sault island, nor will it affect, in the slightest degree, the amount of water in the river east of Barnhart island.

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* The plans submitted by the Long Sault Company indicate their intention to enlarge the South Sault channel, and thus enable them to divert to it part of the flow that would normally pass down the North Sault.—A.V.W.

IV. Ice Conditions in General

It is well known that the South Sault channel has often been dammed by ice jams at the same time that the Farran Point channel has been similarly obstructed, so that all of the ice in the river passed through the Big Sny and North channels. This occurred notably in the years 1887, 1905 and 1907. No property damage whatsoever was occasioned in the channel north of Long Sault island during such congestions. It is also an historical fact that not since the year 1795 has there been any ice congestion in the North Sault channel, and there has probably not been an ice jam in this channel for a very much longer period of time.

As previously stated, the South Sault power-house will cause winter conditions in the North channel practically the same as those caused by an ice jam in the South channel at present, but with this exception: after the power-house is built it will be desirable from an operating standpoint to keep the Farran Point channel free from ice jams, so as to reduce the amount of ice that would otherwise float past the South Channel inlet in entering the Big Sny. Past experience in fighting ice in the South channel shows that this can be done, and if there is no ice jam in the Farran Point channel, an ice-bridge west of Croil island is almost, if not quite, an impossible occurrence, and to this extent, an ice flood at Morrisburg will be indirectly prevented, by the owners of the South Sault power-house keeping free from congestion Farran Point channel.

SUMMARY

Under Existing Conditions

In winter, all of the water in the river flows through the North channel, almost every year, and no damage results.

In summer, about 19 per cent. of the flow passes through the South channel and 81 per cent. through the North channel.

During the Construction Period

In winter, the coffer dam across the South channel will practically reproduce existing winter conditions in the North channel and no damage will result.

In summer, the South Sault coffer dam will raise the level in the North channel at lock 21 from a minimum of 1 foot 3 inches to a maximum of 1 foot 8 inches, higher than would occur under the natural existing conditions in the South channel.

After the Power-House is Built

In winter, with the power-house not in operation, the conditions in the North channel will be practically the same as have obtained almost every year in the past under existing natural conditions in the South channel.

With the power-house in operation, the conditions in the North channel will be the same as have obtained in the past when the South channel was not obstructed by ice jams.

In summer, with the power-house not in operation, the flow of water in the South channel may be passed through the sluice gates adjoining the power-house, thus not affecting the amount of water or the level in the North channel appreciably, or the entire flow may, if desired, to assist navigation, be diverted to the North channel.

In the summer, with the power-house in operation, the water that would have passed through the South channel in its natural existing condition will all be discharged through the turbines, or partly through the turbines and partly through the sluice gates, or, if desired, for the purpose of assisting navigation, the sluice gates may be closed and the water not required for power will automatically be diverted to the North channel.

The operation of a power-house in the South Sault channel will not interfere with, or alter the amount of water or change the river levels east of Long Sault island.

Ice Conditions in General

Ice jams will be prevented in the Farran Point channel and this will make the occasional ice floods at Morrisburg almost, if not quite, impossible.

Massena, N.Y., Sept. 29, 1910.

APPENDIX XXVIII

CORRESPONDENCE

CONTRIBUTED BY MR. J. WESLEY ALLISON OF MORRISBURG, ONTARIO, SETTING FORTH HIS REASONS, IN COMMON WITH THOSE OF CERTAIN OTHER INTERESTS, FOR OPPOSING THE PROJECT TO DAM THE ST. LAWRENCE AT THE LONG SAULT RAPIDS

Washington, D.C., February 13, 1911

Right Hon. Sir Wilfrid Laurier,
Premier of Canada,
Ottawa, Ontario, Canada

Dear Sir Wilfrid:

I beg leave to invite your attention from the standpoint of Canadian interests, to the proposal of the Long Sault Development Company to dam the St. Lawrence river and utilize and control for all time its total 500,000 (or 1,000,000) horse-power.

Their project, as now disclosed, involves four power-houses and two dams; three of these power-houses will be on the American side of the International boundary line. The dam at the head of the Long Sault rapids will be, or can easily be wholly on the American side and the dam between Barnhart island and Canada will be partly below, and partly above the boundary line. The Bill, as at first introduced in the House of Representatives, and upon which we were heard for five days before the Rivers and Harbours Committee, contained a provision that required the approval of Canada before its provisions should become operative. This Bill was referred to the International Waterways Commission and while the Canadian section declined to report, the American section reported favourably upon the Bill, but recommended a more specific provision requiring the approval of the Canadian Government. Notwithstanding all this, a new Bill has been introduced, and was referred to the same Committee, which, without giving us an opportunity to be heard, reported it favourably to the House.

This Bill does not contain any provisions requiring the approval of Canada, and expressly authorizes the Company to proceed with its work south of the boundary without Canada's approval; and it is now conceded that such is the intention. This purpose is insisted upon, although attention has been vigorously called to the fact that such acts would entirely disregard the rights of Canada, both on principles of general international law and comity, and the provisions of the Ash-

burton Treaty which require each country to keep the rivers at this point equally free and open for vessels of each country. Nearly 95 per cent. of the water in the St. Lawrence river now flows through the Long Sault rapids and the South Sault channel. This shows how pronounced will be the disturbance of material conditions if the Company should exercise the powers that will be conferred upon it, if the pending Bill should become a law. While the Company is seeking authority to control practically the whole flow of the river and proposes in any event to develop three-fourths of the power on the American side, there is nothing in the proposed legislation that requires them to deliver any power on the Canadian side.

All of these conditions present a situation which in my judgment calls for the immediate and serious attention of the Canadian Government for the protection of Canadian interests. The waterway being common and international in its character, no change can be made in its natural conditions by either country that will not affect the other country having the same common and undivided right to the use of the water; when such changes are proposed by one country, the other country has the right to and should be heard before any change is made. No change should be made except with the consent of each party interested.

The Right Honourable James Bryce, the British Ambassador to the United States, has been fully advised of the situation, and I take great pleasure in saying that he has taken a dignified and intelligent interest in the matter in the line of protection of Canadian interests. He has received us with great courtesy and treats us with the greatest consideration. If he is properly supported by the Canadian Government, I do not hesitate to say, that I think he will be able to cause such delay upon the part of Congress as will enable the submission of the whole question to the new International Waterways Commission.

In that event, if the project is authorized, it will, in my judgment, be authorized subject to the approval of both countries. If you desire further information on any particular question in the Act, I should be very glad to advise you fully.

With kindest personal regards, I am

Yours faithfully,

(Sgd.) J. WESLEY ALLISON

Washington, February 13, 1911

Dr. J. D. Reid, M.P.,
House of Commons,
Ottawa, Canada.

Dear Dr. Reid:

I am taking the liberty of writing you at length, advising you of the position I have taken in opposing the Long Sault Development Company's Bill, now pending in both Houses here.

An investigation of the Bills pending in the interest of the Long Sault Development Company discloses the fact that the Company is endeavouring to get legislation that will enable them to develop power south of the International Boundary line, entirely independent of and without the consent of the Canadian Government. The original Malby Bill, introduced December 14, 1909, contained a provision that the authority thereby vested in the Company would not be operative, until the consent to the construction of the dams, canals and locks and other works by the proper authorities of the United States of America and the Dominion of Canada was obtained. This Bill was submitted to General O. H. Ernst, the chairman of the American section of the International Waterways Commission, who has devoted about six years to the consideration of this great International waterways, for his opinion. He, with the other members of the American section, joined in the opinion that the co-operation of the two Governments was essential and necessary and recommended a section to be attached to the Malby Bill, for the purpose of accomplishing that result, reading as follows:

> "This Act shall not become operative until the Government of the Dominion of Canada shall signify to the Secretary of State of the United States its consent to the construction of such dam and other structures; provided, that if said consent be not given within two years from the date of this Act, then this Act shall be null and void."

Notwithstanding this clause in the original Malby Bill and this specific recommendation of the American section of the International Waterways Commission, the Bill finally reported by the Rivers and Harbours Committee and the Bill now pending in the Senate, both being identical—entirely omits any provision requiring the consent of the Dominion of Canada. It does contain a section which provides that the Long Sault Development Company shall be subject to the provisions of the treaty between the United States and Great Britain relative to boundary waters, proclaimed May 13, 1910.

An examination of the treaty discloses the interesting fact that article IV which relates to dams, is subject to approval in accordance with the provisions of article VIII. Article VIII provides that a ma-

jority of the commissioners shall have power to render a decision. It further, provides that, in case the Commission is evenly divided separate reports are to be made by the Commissioners on each side to their own Government and in that case, the Governments are to endeavour to reach an agreement. But, it is obvious that, if they do not agree, no result is reached, so that if the dams proposed to be built by the Long Sault Development Company are not approved by a majority of the Commission then, in so far as the International Waterways Commission is concerned, the situation of the Company is not in the slightest degree changed, because the provisions of the treaty with reference to the approval of the commissioners will have been exhausted without any definite result.

The pending Bill evidently anticipated this situation, because it not only omits all provisions requiring the approval of the Dominion of Canada to the construction of the dams, but expressly provides that the company is "authorized to construct, maintain and operate for navigation, water-power and other purposes for a period of ninety-nine years, a dam or dams in so much of the St. Lawrence river as lies south of the International Boundary line between the United States of America and the Dominion of Canada near Long Sault, Barnhart and Sheek islands, either independently or in connection with like works now erected or to be erected in so much of said river as lies north of said International Boundary line."

It discloses the specific and deliberate purpose of authorizing the Long Sault Development Company to build its dams south of the International Boundary line without the consent or approval of the Dominion of Canada.

I strongly urge upon you to lay before Parliament the above facts, and oblige,

Yours very truly,
J. WESLEY ALLISON

Washington, D.C., Aug. 2, 1912

Editor Ogdensburg News,
Ogdensburg, N.Y.

My Dear Sir:

The Montreal *Star* publishes, with conspicuous headlines, under date of July 13, a special from Brockville, which outlines with considerable detail, engineering plans for damming the Long Sault, the claim being, that by these new and improved plans which have been in preparation for the past two years all objections to this work by the Canadian and United States Governments are completely obviated.

The article is evidently designed to mould public sentiment in favour of the damming project, and to create the impression that these

new plans have been submitted to and received favourable consideration by a joint board of some description. Nothing could be further from the truth. If any new plans of any kind have been devised by those interested in this project, such plans have not been brought to the official notice of either of the Governments concerned, and, of course, it is perfectly well known that under the treaty between the two Governments in regard to navigation on the St. Lawrence, consent of both Governments would be necessary to the execution of any project for damming the river.

By those in a position to know, it is affirmed that no plan can be worked out which will obviate the danger of ice jams and the enormous destruction of private property incident thereto. The whole project is based on a ruthless disregard of private rights and individual ownership, for the benefit of corporate greed and wealth. The project never has received the approval of the American Government and there is little likelihood that it ever will.

The Bill introduced in the House of Representatives by the late Congressman Malby, two years ago, was defeated then, when public sentiment on the subject of water-power had not been aroused. Since that time there has been a steady growth of sentiment in the American House of Representatives in favour of conservation of water-power by the Government and against any granting of rights or franchises therein to individuals or corporations. This has been signally illustrated during the past two weeks of the present session of Congress—a bill granting water-power rights in a number of smaller streams having been defeated by an overwhelming vote—and it is certain that the policy of Congress will be to grant no rights of this kind, until some general policy has been formulated on the subject. If any project is ever worked out for utilizing the enormous power on the St. Lawrence river, nothing is more certain than that the Canadian and United States Governments will not make this power subject to private ownership, but will utilize it for the benefit of the people of both countries.

No amount of newspaper exploitation can ever create a sentiment in either country in favour of the utilization of this power for the enrichment of individuals or private corporations at the expense of the people of either country.

If desired, I can give you more complete information in regard to this question.

Yours very truly,

J. WESLEY ALLISON

APPENDIX XXIX

PROTEST OF THE MONTREAL BOARD OF TRADE

To The Right Honourable,
Sir Wilfrid Laurier, G.C.M.G.,
Premier of the Dominion of Canada

THE MEMORIAL OF THE COUNCIL OF THE MONTREAL BOARD OF TRADE HUMBLY SHEWETH

That your Memorialists have recently appeared before the International Waterways Commission, and urged their objections to the application of the St. Lawrence Power Co. and the Long Sault Development Co. for permission to dam the St. Lawrence river at Cornwall, from the Canadian side to the American side.

That on that occasion the Canadian Chairman of the Commission said, (see page 147 of the Minutes of the meeting of the Commission held at Toronto 8th and 9th February),* that the question before the Waterways Commission was whether it is possible without interference with the interests of navigation, to erect a dam, or dams, in the St. Lawrence at this point.

That your Memorialists believe that there is a far more important issue to be decided than that referred to the International Waterways Commission, and one that your Government alone can pronounce upon, and for that reason your Memorialists address themselves to you.

That your Memorialists consider it to be against the interests of Canada that any private or alien corporation should now, or hereafter, be allowed to acquire a lien on the St. Lawrence river, for, did such lien exist, the Dominion Government, in developing our great water route, would have to deal with vested interests, some of which would be protected by the Government of the United States, which country is, and always will be, Canada's great trade competitor, and is, therefore, likely as a matter of policy to avail itself of any opportunity to hamper Canadian navigation interests.

That while in the future it may become necessary to canalize the St. Lawrence, and to construct dams at various points therein, thereby wresting large water-powers, your Memorialists are strongly of opinion that navigation interests should ever be paramount, and the provision of power a secondary consideration, and, further, that such dams should,

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*See page 346.

so far as Canada is concerned, be Government works, and that the power works in Canada created by such dams should be owned, or at least controlled, by the Dominion Government.

That, in conclusion, your Memorialists beg to most heartily endorse the following findings of the Dominion Government Conservation Commission in connection with this matter.

> "The time will undoubtedly arrive in the history of Canada when deeper navigation upon the St. Lawrence will require to be provided for by the Canadian Government. Should the works proposed by the St. Lawrence Power Co. be constructed, the Government will no longer have a free hand in undertaking such an enterprise. The vested rights of the Company would require to be considered, or the Government would require to expropriate such works, paying an enormous sum, by way of damages. Moreover, it is not clear that expropriation could be had on any terms. The international character of the works might prove an insuperable bar, in which case the Canadian Government would be without remedy, and the improvement of navigation could not be effected.
>
> "The proposition, as before us, contemplates giving away this valuable asset without any substantial consideration, to a foreign company for its private financial advantage, and the obvious conclusion from the facts above recited seems to be the plain duty of Canada is to maintain her rights of ownership and jurisdiction absolutely unimpaired and untramelled."

The whole respectfully submitted.

(sgd.) GEORGE L. CAINS
President

(sgd.) GEO. HADRILL
Secretary

Signed on behalf of the Council of the Montreal Board of Trade, Montreal, 8th March, 1910.

APPENDIX XXX

PROCEEDINGS

At Public Hearing, held before the International Waterways Commission, regarding the Proposal of the St. Lawrence Power Company and Long Sault Development Company, to Dam the St. Lawrence River at the Long Sault Rapids

Toronto, Tuesday, Feby. 8, 1910

The Commission met in the Queen's Hotel at 12 o'clock

Present: Canadian Section:
George C. Gibbons, Esq., K.C., Chairman
W. J. Stewart, Esq., C.E.
H. Langlois, Secretary

American Section:
Brig-Gen. Ernst, Chairman
George D. Clinton, Esq.
Prof. E. E. Haskell
W. Edward Wilson, Secretary

The following deputations were present:

Long Sault Development Company:
Leighton McCarthy, K.C., Counsel
J. W. Rickey, C.E.
Henry Holgate, C.E.
H. G. Kelley, C. E.

St. Lawrence Power Company:
Leighton McCarthy, K.C., Counsel
Geo. G. Foster, K.C.

Richelieu & Ontario Navigation Company:
R. C. Smith, K.C., Counsel
C. J. Smith, Manager

St. Lawrence and Chicago Steam Navigation Company:
A. A. Wright, Superintendent

Ontario Government:
Hon. Adam Beck, Minister of Power
Irwin Hilliard, K.C., Counsel

COMMISSION OF CONSERVATION, CANADA:
James White, Secretary
DOMINION MARINE ASSOCIATION:
Francis King, Secretary, Kingston
LAKE FREIGHT ASSOCIATION:
Frank Plummer, President
SHIPPING FEDERATION:
Francis E.. Meredith, K.C., Counsel
MONTREAL:
Eugene Lafleur, K.C., representing Montreal Board of Trade
John Kennedy, C.E., Engineer Harbour Commission
Lawrence Henderson, General Manager, Montreal Transportation Company
T. J. Coonan
Arthur V. Davis
TORONTO BOARD OF TRADE:
W. J. Gage, President
F. G. Morley, Secretary
Barlow Cumberland
PRESCOTT:
F. S. Evanson, Mayor
J. K. Dowsley
I. P. Wiser
MASSENA, N.Y.:
Capt. W. W. Cline
BROCKVILLE:
A. M. Patterson, Mayor
W. C. Maclaren, President, Board of Trade
Hugh. A. Stewart, K.C.
James A. Hutcheson, K.C., Town Solicitor
W. S. Buell
W. H. Davis
J. Webster
J. A. Mackenzie
Dr. S. Gowan
W. H. Osborne
W. E. Brough
D. W. Downey
C. S. Consitt
A. T. Wilgress
G. Barclay
R. Bowie
O. K. Fraser
W. H. Kyle

G. Ross
W. B. Thomson
C. T. Wilkinson
W. Shearer, Secretary, Board of Trade
Hon. Daniel Derbyshire, Senator

CORNWALL:

Robert A. Pringle, K.C., representing town of Cornwall and Board of Trade
P. E. Campbell,* President and General Manager, Montreal & Cornwall Navigation Co.

MORRISBURG:

Geo. H. Watson, K.C., representing Morrisburg, Williamsburg, Matilda and Osnabruck
W. C. Connolly

Chairman Gibbons, having adjourned the meeting until 2 o'clock, on account of the absence of Brig-Gen. Ernst and Prof. Haskell, resumed the Chair at 2 o'clock.

CHAIRMAN GIBBONS: I am exceedingly sorry that owing to the lateness of the trains from New York and Washington two of the American Commissioners—General Ernst, Chairman of the American Section, and Professor Haskell—may not be able to reach Toronto till 4.30. After consultation with the other member of the American Section, Mr. Clinton, it has been thought better to proceed, on account of the large number of people who have come here. What is said by the gentlemen will be taken down in full in shorthand, and of course the Commissioners who are not here will have the benefit of these remarks. The importance of the question which is to come before the Commission is evidenced by the size and importance of the delegations in attendance. I am not going to make a speech, I am merely going to suggest to you the main issues that will have to govern any decision that this Commission may reach in regard to this matter—this being an International Board dealing with these international streams, and being an advisory Board merely. The Commission has agreed upon certain principles governing the use of these boundary waters. The first was that the interests of navigation were paramount, but that wherever, without material injury to the interests of navigation, developments for power could be permitted by the use of those waters, that permission should be granted, but subject to the condition that each country was to be ensured one-half the advantage from such development. Now, a strong objection has been made —there may be a great many others—that the present proposal involves the damming, by a series of dams, of the St. Lawrence river, a navigable stream of which both countries have by

* Also Director, St. Lawrence Power Transmission Co.

treaty a common right of use. And there is a further question, whether the scheme, as suggested, is capable of being worked out in such a way as to ensure to the people of both countries an equal division of the power generated. I should be very glad if you would arrange the order of your speakers and give us the names of these. Of course we will, first, hear from those who will explain the proposals of these two companies, one Canadian and one American. They propose jointly to deal with this question. If you cannot give us a list of the names we will call upon them. If Mr. McCarthy is here I will call upon him.

MR. LEIGHTON MCCARTHY, K.C.: Mr. Chairman, and members of the International Waterways Commission: As I understand this matter, the Commission has met for the purpose of again discussing this somewhat important International matter. It is not by any means a new matter to the members of your Commission. In October, 1907, this scheme or proposition was laid before this Commission in this room. A month or two later, as a result of certain criticism, or in view of the importance of the question from the standpoint of the city of Montreal, you, sir, convened a meeting there, and the matter was very fully discussed by the representatives of the respective power companies, and, likewise, by those who were interested in seeing that all the details of the scheme were laid bare, and in protecting whatever rights or interests they might have upon the river St. Lawrence. Again, in November, 1908, when your Commission was in session in Toronto, this matter was again discussed. On the 8th January of this year the matter was discussed once more before this Commission in Buffalo, and then it was suggested that a meeting should be held in the city of Toronto for the purpose of further discussing it.

The original proposition made by the companies desiring to develop power at the Long Sault rapids in the St. Lawrence river was presented to the Government of Canada in December, 1907. The plans and proposition were discussed in a conference between the engineers of the power companies and the Government engineers. Certain modifications or changes in that scheme or proposition were suggested, resulting in an amended proposition or petition being submitted to the Government of Canada in January, 1909. That, sir, is the scheme which you are now considering.

As I said in opening, this is an International matter. It is not a matter involving only the interests of one country; it involves the interests of the great republic to the south of us as well as the interests of Canada. Both companies therefore ask a broad consideration of the scheme which they are submitting. It will better Canada as it will better the United States. We ask for a united effort on the part of Canadians and Americans for the betterment of the citizens of both countries. It is recognized by each country that the consent each gives

must be subject to the consent of the other. Never has either company asked of its Government anything else than that the approval of this scheme should be subject to the approval of the other country. Therefore we come before you asking, in the interests of progress and development, that a broad national view be taken of this progressive proposition.

The water which now passes down the Long Sault rapids has for all these years practically run to waste. It is said that a large amount of power can be developed there. The citizens of Canada and the citizens of the United States in that immediate locality are far removed from the coal mines, which are the steam producers of both countries wherever water-powers do not exist. This water-power, therefore, should be to this locality what coal mines are to Nova Scotia or the West, or to Pennsylvania. Now, sir, you will bear me out that we have from the beginning agreed in endorsing and accepting the statement which you have so well made with reference to the interests involved in, or affected by this proposed scheme. At the present time, as I understand it, if doubt there be in the minds of any of the members of the Commission, it is solely and only on the subject of navigation. Speaking in Toronto in 1908, sir, you said:

> "No permission would be given to anybody that does not give complete and absolute control to some representatives of each Government, whatever form it takes. At present this Commission may be given greater power to deal with these questions relating to boundary waters; but, at all times, they will be subject to the control of somebody so that the interests of navigation will be protected to the utmost. There is no danger at all from anything of that kind,—not the slightest. The one great, big point here, and the only one point, is whether these proposed improvements—which ought to be granted if they are not an injury to navigation—will be an injury or a benefit upon the whole—and you have to look upon them as a whole. Now, that is all there is to it. You need not be afraid but that the matter will be very seriously considered by all the members of the Commission, who will seek to get at the principle and do what is right under the principle established, and which are the only proper principles to govern them in dealing with what are international waters. We do not want, and must not allow, any little jealousies between the two countries to arise. Nobody has any property in this water; it is not American water, it is not Canadian water; it is for common use."

You likewise spoke, sir, in just as plain terms in the city of Montreal in November 1907. You said to the parties interested in navigation:

> "The interests of navigation are to be in all cases paramount, and subject only to the right of use of the water for domestic purposes. That is to say, that, when water is taken at Sault Ste. Marie, one-half of the power of the surplus water that can be taken

without interfering with navigation should be reserved for the use of the Canadian people. That principle has been adopted by the general Commission. Now, this application comes before the International Waterways Commission, being an international matter, and has to be dealt with by both Governments. Of course, it is the desire of the Commission, and in the public interest, that, where power can be developed without injury to paramount rights of navigation, it should be permitted; but if there be interference with those rights, of course it cannot be allowed."

Again, later, in speaking in reply to a gentleman, you put it possibly more succinctly, and very much to the point, when you said:

"You can rely upon that. I said at the opening, that the principle agreed upon by both sections of the Commission, United States and the other, is that the interests of navigation are paramount. The only idea was that we should allow public improvements consistent with that, but not otherwise. It is to get at some means of finding what the truth is that we are holding this meeting."

Now, as I say, we concede that the interests of navigation are paramount. What is the situation, then, as it applies to navigation interests? And what are the navigation interests involved? We assert; our engineers advise us—and we have not heard of any engineer who says to the contrary—that not only will navigation not be prejudicially affected at this particular point, but that it will be vastly improved. We have yet to hear from any engineer who says that the navigation interests at this particular point will not be improved if our proposed scheme is allowed to be carried out. It has been currently said by some of the opponents of the project,—"Oh, but you must not dam the St. Lawrence!" Sir, that is technically correct, but we do not propose to dam the St. Lawrence in the sense in which these opponents desire to convey to the public. The dam or dams that are proposed would be at an impassable point—at the Long Sault rapids. These rapids are not used by the great majority of the vessels which ply the St. Lawrence route, in fact there are but one or two exceptions which I will deal with later. No vessel going west on the St. Lawrence uses the Long Sault rapids. At present, both Canadian and American boats going west must use the Cornwall canal. Seven lockages are necessary in order to get through that canal. The proposed scheme does not affect in any manner whatsoever the Cornwall canal which is to be left intact and its integrity is to be preserved. It is a very simple proposition, and we have heard no engineer say that it was not practicable and feasible—not one. We offer to the navigation interests, going east and going west two channels where you now have but one. We offer to build for the navigation interests a new lock with but one lift. We tell you that there will be ample facilities and lots of water to

handle the shipping that now uses the St. Lawrence river. Is there any man that will say that providing two channels where there is now but one is not an improvement? And when I add to that, that the new channel will require but two lockages in the round trip, while the present channel requires 13 lockages in the round trip, the benefit is even more apparent. I think the scheme simply has to be studied. Its benefits are so obvious that when they are understood no cloud can be thrown across one's eyes to prevent one from seeing the benefit to be derived therefrom.

Now, of course, the question as to whether or not the Company's project is practicable, is largely an engineering proposition. Two years ago this Commission offered to the Shipping Federation of Montreal, the Dominion Marine Association, the Board of Trade, or any other parties interested, the services of engineers, to be paid for by the Government of this country, to look into this scheme, and to advise as to whether the proposition was feasible and practicable. Up to the present moment, I have not heard that any one of those organizations has taken advantage of that offer; nor have I heard of any engineer differing from our engineers with reference to the feasibility and practicability of the scheme.

Now, what are the navigation interests involved? I assert, although the Dominion Marine Association some time since did place itself on record as being opposed to this scheme, that the persons interested in the Dominion Marine Association—that is, the users of this channel—are not opposed to this proposition and that this proposition is in their best interests. Now, let us analyse the situation and see whether my statement is correct, and whether or not I can vindicate myself on that point. Who are the chief users of the St. Lawrence channel between Kingston and Montreal? They are practically altogether the freight interests. There is but one passenger line doing business between those points—

A Voice: No.

Mr. McCarthy: Two?

A Voice: Two.

Mr. McCarthy: Then I stand corrected.

A Voice: Three.

Mr. McCarthy: Mr. Smith's mind would find a great many, I have no doubt about that, but the only one that I have heard anything about is the one that protested at that moment.

Mr. R. C. Smith, K.C.: Would you like the names of the others?

Mr. McCarthy: Oh, you will get a chance later. I say therefore, that the freighters are the people—the navigation interests, mostly interested in this proposition. Who are they? The one person, I suppose, who controls and manages the greatest volume of that kind of

business is Mr. J. W. Norcross. He is, as I understand, in control of the management of the Merchants Mutual Line, The Mutual Steamship Company, The Matthews Steamship Company, Jaques & Company, Bickerdike, Ltd., Collingwood Shipping Company, Canadian Lake & Ocean Navigation Company, and the Purdy boats. Now, J. W. Norcross & Co., have written a letter addressed to the International Waterways Commission which reads as follows:

TORONTO, January 31, 1910

HON. GEO. C. GIBBONS
Chairman, Canadian Section
International Waterways Commission

Dear Sir:

We have had called to our attention the proposed plans of the St. Lawrence Power Company, Ltd., and the Long Sault Development Company for the development of hydro-electric power at the Long Sault rapids in the St. Lawrence river. We have had these plans explained to us by the engineers and understand that the proposed improvement does not in any way impair the present efficiency of the Cornwall canal, and, that in addition to the present facilities which we now have, the companies propose to furnish us an entirely new channel with but one lock and that this channel will have 25 feet depth of water and be 800 feet wide, the current not to exceed four miles per hour.

We are vitally interested in Canadian waterways and are operating the largest fleet of vessels at present engaged in the transportation of package freight from Montreal to Toronto and the West and the transportation of grain and other freight from Western points to Montreal.

This new channel with one lock should save our vessels about three hours on each passage up or down, as compared with passing through seven locks in the present Cornwall canal in good weather; but in the event of high winds and very dark nights, it would enable the vessels bound from Montreal west without cargo to navigate in an 800 foot channel where they should otherwise be forced to tie up in the present Cornwall canal.

This new channel would give us a double channel through the territory now served by the Cornwall canal and would remove almost entirely the possibility of the St. Lawrence being closed through accident to one of the present seven locks in the Cornwall canal, which, in 1908, tied up all traffic on the St. Lawrence for about two weeks.

The development of power contemplated by these companies should locate in the vicinity manufacturing plants which would tend to furnish business for Canadian vessels.

In the last three paragraphs we have given some of our reasons for being in favour of the proposed plan and wish to put ourselves on record as believing that these improvements, if suc-

cessfully carried out, are for the best interests of Canadian vessels and Canadian commerce.

Yours very truly,
(Signed) J. W. NORCROSS & CO.
Vessel Agents and Brokers
8–10, Wellington St., E.
Toronto

MR. R. C. SMITH: The date, please?

MR. MCCARTHY: January 31st, 1910.

MR. HENDERSON: Written by Mr. Norcross?

MR. MCCARTHY: I did not say so. I said it was written by J. W. Norcross & Co. That is whom it is signed by.

MR. HENDERSON: Mr. Norcross was in England at that time.

MR. MCCARTHY: I think he was in England. I think Mr. Henderson, you knew Mr. Norcross' views on this subject?

MR. HENDERSON: No, I have had no conversation with him.

MR. MCCARTHY: The other large freight interest is represented by Mr. Plummer, President of the Lake Freight Association, who is present and will speak for himself. I understand the freight companies which he represents recognize that this proposed scheme will be of very great benefit to them, and that they are prepared to say so and to place themselves on record to that effect.

Then, sir, we have the Montreal & Cornwall Navigation Company, which has also addressed a memorial to your Board, in which they say:

TORONTO, ONT., February 8, 1910

To the Chairman and Members.
Of the International Waterways Commission

Gentlemen:

We, the undersigned, The Montreal and Cornwall Navigation Company, humbly present this petition to you, in regard to the scheme now before you, in connection with the damming of the Long Sault rapids.

We are the owners of several vessels plying on the St. Lawrence river between Brockville and the city of Montreal. We have had an experience extending over twenty years. Knowing the river as we do, we are firmly of the belief that the proposed scheme will not in any way injuriously affect the present navigation of the St. Lawrence river, as we understand the Cornwall canal will remain in exactly the same condition as it now is, while navigation, on the other hand, will be enormously improved owing to the fact that if this scheme is carried through to completion, there will be a lock in the South Sault, which will duplicate the means now afforded by the Cornwall canal for navigation past the Long Sault rapids. We are also strongly of the opinion that the velocity of the currents in the Farran Point and the Big Sny channels, will be subsequently lessened, and the dangerous side-current now existing at the upper entrance to the Cornwall canal will be destroyed. Duplicate navigation facilities past the Long Sault

will ensure shipping interests against delay due to the failure of, or accident in, either the Cornwall, or the South Sault lock. Boats passing the Long Sault will make a round trip in from four and one-half to seven hours less time than at present, which will lessen the cost of transportation of freight from points west of the Long Sault rapids to the city of Montreal.

After the proposed works are constructed, the velocity of the current on the south side of Barnhart island will be very much decreased, and from the experience we have had on the river opposite and above Cornwall, we know that it will be feasible for boats to use the main channel on the north side of Cornwall island, between Cornwall and the foot of Barnhart island.

We would say further, that in operating our boats between Montreal and Brockville, we meet very much stronger and swifter currents than at point Moulin.

The freight which is carried both east and west on the St. Lawrence, passes almost entirely through the Cornwall canal, there being no quantity of freight carried through the rapids, consequently any scheme that will cause a saving of hours to vessels passing the Long Sault rapids, must be a great benefit to navigation.

In view of the foregoing, we would say that we are heartily in accord with the scheme, and consider that it will accrue to the benefit of all navigation interests on the St. Lawrence river.

Respectfully submitted,

THE MONTREAL & CORNWALL NAVIGATION CO.

per (Sgd.) P. E. CAMPBELL
President and Managing Director

MR. MCCARTHY: I may say that Mr. Campbell is here prepared to substantiate what he says in this letter. Then, sir, we have two other large interests in the way of freighters, one of which is The George Hall Coal Company of Canada, Limited, who wrote to you as follows:

TORONTO, February 8, 1910

The Chairman and Members
Of the International Waterways Commission

Gentlemen:

The George Hall Coal Company of Canada, Ltd., operates twelve vessels between lake Ontario and Montreal, and maintains yards and offices in the city of Montreal, in which it is a large taxpayer, having an investment therein exceeding two hundred thousand dollars, and does a wholesale and retail coal business.

We have been familiar with the problems of navigation in the St. Lawrence river for many years, and we have made a careful examination of the projected plans in relation to the Long Sault.

From our inspection of these plans, and from our own knowledge of river conditions, we see no objection to the project, as planned, affecting the general navigation of the river; on the contrary we consider that, offering as it does an alternative route,

it would be of very great advantage to all freight shippers in case of an obstruction occurring from any cause in the Cornwall canal. We believe that it would save about eight hours on each round trip that our boats take between the lake and Montreal by cutting out eleven lockages incident to passage.

Respectfully submitted,

THE GEORGE HALL COAL COMPANY OF CANADA, LTD.

per (Sgd.) W. C. KELLVEY
Agent for the purpose

MR. MCCARTHY: Then there is The Ogdensburg Coal & Towing Co., who wrote as follows:

OGDENSBURG, N.Y., February 8, 1910

The Chairman and Members
Of the International Waterways Commission

Gentlemen:

The Ogdensburg Coal & Towing Co., operate sixteen freight boats in the St. Lawrence river between lake Ontario and Montreal, and in connection with our business we operate a large wholesale coal business in the city of Montreal, and have a considerable investment in the city of Montreal, and have been so engaged for a period of thirty years. We are further allied with the Daly & Hannan Dredging Company, and have thus for many years made a special study of the channels and currents of the St. Lawrence river.

We have fully examined the proposed plan of the St. Lawrence Power Co. Ltd., and are of the opinion that the proposed development will not only be no detriment to the navigation of our boats, but, will on the contrary, constitute a substantial improvement.

We are members of the Dominion Marine Association, and desire to go on record as being in favour of this proposed development. The proposed development will leave unimpaired the present route through the Cornwall canal, and will give another route in the event of obstruction, repairing or enlarging of the Cornwall canal.

Respectfully submitted,

THE OGDENSBURG COAL & TOWING CO.

per (Sgd.) JOHN HANNAN
President

MR. MCCARTHY: Now, I may say that the representatives of The George Hall Company and Mr. Hannan himself are here, prepared to substantiate what they say in those letters. It was thought more convenient to put their views in that form in order that we might save time and have fewer speakers. Now, I shall read a letter signed by James Playfair, President of the Midland Navigation Company, Ltd:

MIDLAND, ONT., February 1, 1910

HON. GEO. C. GIBBONS, ESQ., K.C.,
Chairman, International Waterways Commission,
Toronto, Ont.

Dear Sir:

Re South Sault Channel:

I understand there is a meeting in Toronto on February 8th of the different interests to discuss the power development at the Long Sault rapids. In the past all our business has been on the Upper lakes, but if certain negotiations go through, I expect to run some of our boats to Montreal. At present I am unable to say what effect the development of the Long Sault rapids would have on navigation, but from what I can find out I do not think it would make any difference to freight boats using the St. Lawrence. In fact, I think it would be a benefit, as one lock would be used as against seven at present. So this would make a difference to a boat of six or seven hours on the round trip.

Anything that can be done to improve navigation between Port Colborne and Montreal, making it safer and quicker, is in the interests of the vessel owners.

Yours very truly,

(Signed) JAS. PLAYFAIR

MR. MCCARTHY: I have thus given the views of the Norcross interests, the Ogdensburg Coal & Towing Company, the George Hall Coal Company, the Cornwall & Montreal Transportation Company, and the Midland Navigation Company—if it makes this arrangement to run its freight boats to Montreal. Then, taking it for granted that Mr. Plummer represents himself and also, as I understand it, the MacKays of Hamilton and Mr. Jaques of Montreal, we have practically all the freight owners using that route, with the exception of my friend Mr. Henderson, in favour of the project. All of those freight owners, owners of vessels carrying freight—I speak under my instructions—have looked into this scheme and approved of it as a betterment to navigation; that is to say, provided that the necessary safeguards are furnished, that the interests of the country are protected and that the scheme as outlined by us is carried out. Now, as to my friend Mr. Henderson, I do not quite know exactly what his position is, he is here and will speak for himself. I have understood, however, that he is of the opinion that if this work can be carried out as we suggest, undoubtedly it would better the navigation facilities at that point; but he has some idea that possibly the interests of Canada will not be fully protected. Well, as to that, sir, I am content to leave it with you and the Government of this country, who no doubt will see that no contract is entered into, or franchise or right given wherein Canada's interests are not fully protected. As I say, practically all the freight owners on the St. Lawrence route agree

that this will better navigation facilities at this point. We preserve for them the only route they have now, and we offer them another one.

We have yet to deal with the Richelieu & Ontario Navigation Company. True, its boats use the rapids, and have used them for a considerable length of time, that is to say, on their trips down the river. On the west-bound trips their boats must, in common with all others, use the canal. So, the deprivation in this case is: that it simply prevents that company, for a period of three or four months each year from running these rapids with one passenger boat per day. We say that the giving of that lock will not delay them on down stream trips; that they can make their time just as well by passing through that one lock as they can by passing the rapids. In answer to their objection that the scenic value of the rapids will be lost, we say that they will not be deprived of that asset, but that instead, the proposed works will enhance its value. There are other rapids down the river which tourists will see, and the proposed dam would be forty feet high, with ten feet or so of water running over it; that will be something to look at, and something which tourists will come to see. Now, that is the navigation situation so far as users of that channel are concerned.

What are the further interests that may be affected? We understand that the Shipping Federation of Montreal and the Board of Trade of Montreal are represented here. They have been heard before this Commission previously. They have with one voice said that so long as the level of the water at Montreal is not affected, that that is as far as Montreal and points east of Montreal need be concerned. Now, sir, I state as a fact, that the engineers of the Government, after conferring with our engineers, agree that the elevation of the water in the harbour of Montreal will not be affected in any way whatsoever by those works; that in the event of failure of these works Montreal would not be affected; that the level of the water in Montreal harbour would not be affected. The Shipping Federation of Montreal may rest assured of this fact, that the Government, from the first, and the Waterways Commission likewise from the first, have said that the navigation interests are paramount; you must be certain that they are not going to be interfered with before this work can be permitted. There has not been one tittle of evidence given to show that the level of the waters below these works will be detrimentally affected by them—not one tittle, sir. So that I say to the Shipping Federation of Montreal, the Harbour Commissioners of Montreal, the Board of Trade of Montreal, that they will not be prejudicially or detrimentally affected in any way whatsoever; but instead, that they will be benefitted. If you want to bring shipping to your port, if you want to bring business to your city by the channel of the St. Lawrence from the West, the better facilities you have on it the more

business you are going to bring. There cannot be any answer to that. Conceding, as I do concede, that navigation interests are paramount, will the Shipping Federation of Montreal, the Board of Trade of Montreal, or the Harbour Commission of Montreal be affected at all unless it be that these works will affect the water there? If they do not affect the water, they cannot have one word of complaint, but on the contrary they must have words of approbation. The larger places that grow up contiguous to Montreal and in that locality must be a benefit to them. The development of this large power close to Montreal must be a benefit to Montreal. It may not be to the Montreal Light, Heat & Power Company; I do not know as to that; but as to the Montreal people and their interests, if they want large manufacturing interests close to them, here is one means of securing them. We do not ask them if they are going to prejudice navigation interests; we do not ask if navigation interests are not paramount, we all admit and we concede that they are. But we say to them that not only do we not detrimentally affect navigation, but we vastly improve it, and will make the trade and commerce of their city more than it is to-day, because the facilities will be better. A deep-draught boat may go through this proposed lock of ours, whereas it cannot go through the present Cornwall canal. There is an agitation on at present to deepen the Welland canal, to spend the country's money in deepening that. If that is going to be deepened in order to let vessels of large draught come to the city of Montreal, how much greater would be the benefit that this proposed improvement would be to that city! Does it realize the benefit of having vessels go through one lock, thus saving the deepening of the Cornwall canal to place it on a par with the Welland canal? Now, I say that the Government engineers have found that the level of the water at Montreal will not be affected by these proposed works; that the water in the channel east of Montreal or west of Montreal up to our proposed works or beyond, will not be detrimentally affected.

Again, we have in the province of Ontario a large development of power in its western portion. The evidence of this is seen if anybody cares to travel through it. Manufactories are growing up there. Where there was, in a measure, stagnation, there is now a development of manufacturing industries. Eastern Ontario has been robbed by western Ontario, because western Ontario has got power and eastern Ontario has not got power. I say that the towns near the Long Sault—Brockville, Cornwall, Morrisburg and all those places—will be benefitted by the development of this power in the same manner as the Niagara peninsula has been benefitted by the development of Niagara power. The people of Brockville recognize it. They are here to-day, some 20 or 25 strong, the most reputable and influential citizens, to demonstrate that. The people of Cornwall are represented here to-day, by Mr. Pringle and

Mr. Campbell, asking and insisting that this work be allowed, in order that they may have power at their doors. What then, is the reason that the Companies' application should not be granted? There does not seem to me to be one logical reason, why these two companies should not be permitted to unite their efforts to develop power at the Long Sault. If it is demonstrated that navigation is interfered with prejudicially, it is granted that, under the ruling of this Commission, and the ruling of the Government, this work cannot be permitted. But in the absence of that, is there one tittle of evidence? Is there one reasonable argument suggested, why these works should not be allowed to progress and this power to be developed for the good of the people of eastern Ontario?

It is said that we should be alive at this moment to the conservation of national resources. Grant that we should; how do you conserve water-power? By letting it run to waste for ever and anon? You conserve timber by keeping it standing; you conserve coal mines by keeping them from being wastefully operated; but how do you conserve a water-power? In only one way that I can suggest, and that is, by the utilization of it. If you have water running to waste you are not conserving it by letting it go on running to waste forever. Surely it behooves a progressive man, a man who desires to build up his country, to utilize that which God has given him in the shape of water-power; and utilization is the only method of conservation that I know of, and that is what we want to do at this particular point. Do not imagine, Mr. Chairman and gentlemen, that we for one moment desire to do this for nothing. We are prepared to negotiate, we are prepared to deal with the people who own this place. We are prepared to arrange upon what would be a fair and equitable basis to deal with anybody in respect of this power.

There has been a great deal of clamour lest the Waterways Commission, in the discharge of its duty, and the Prime Minister and his Ministers in the discharge of their duty, should allow a lot of rapacious Americans to come over to Canada and obtain too many rights. But the negotiations have been fair. All we ask, and all we want, is a fair and reasonable and equitable division of the power developed at this point by the two companies. Now, sir, if I could say anything more that would make this a fair and reasonable proposition I would be pleased to do so; but I have sought to answer all I have heard, all that has been said, in opposition to this proposition.

The sentiment of Canadians has been appealed to. It has been said, "You are robbing me, a Canadian of my heritage." Well, we of Canada have a heritage, and we are proud of it; but if we have a heritage that we are proud of, how much more pride can we have in that heritage if we use it and develop it and build up cities and manufacturing industries! But, as the Chairman pointed out when he referred to this

matter, two or three years ago, does this heritage belong entirely to Canada and to Canadians? From Ogdensburg to below Cornwall on the south bank of the St. Lawrence river is American territory. The International Boundary at those points is much closer to the Canadian shore than to the American shore. But let us assume an even division all along that long distance; is not the St. Lawrence river at those points the common heritage of the two nations? There is no right, as the Chairman says, in the water; there is a right of user; and all we ask on behalf of these two companies is to be permitted to use these waters for the development of both countries; for the benefit of the Canadian people as well as of the American people; to build up American interests, to build up Canadian industries. Now, sir, I would ask you to hear Mr. Rickey, who will simply outline technically the scheme of these two companies.

Chairman Gibbons: As the Commission has never had any of those letters, or heard of them, I think they should be filed.

Mr. McCarthy: Certainly, sir, I intend to file them.—Mr. McCarthy then handed to the Secretary of the Commission the letters which he had read.

Mr. J. W. Rickey, C.E., Engineer for the St. Lawrence Power Company and the Long Sault Development Company, then addressed the Commission. He said:

Mr. Chairman, Members of the Commission, and Gentlemen: I show on the map (indicating) the general outline of the plan proposed for developing the power of the Long Sault rapids. This plan is somewhat like that which was shown you about two years ago, particularly those parts that lie south of the International Boundary line, which I will trace out with my pointer. (Tracing boundary line). South of that line the works as outlined to you two years ago are the same. North of that line they have been changed. The plan now proposed contemplates maintaining absolutely the integrity of the Cornwall canal. As Mr. McCarthy put it, it will not be interfered with in any way, no matter what happens to these works. Assume for the sake of argument that the dam should wash out, the Cornwall canal will not be interfered with at all. I wish to make that point very clear. Most of you are probably somewhat familiar with the situation of these islands. (Pointing out Long Sault island, Barnhart island, Sheek island). The Cornwall canal lies on the north side of Sheek island. This is (indicating on map the lock at the lower end of the South Sault channel) the single lift-lock to which Mr. McCarthy referred when he said the boats would save from four to seven hours time on each round trip, and at the same time avoid eleven lockages, there being required two lockages for each round trip in going through the South Sault lock, whereas there are thirteen required in going through Cornwall canal and Farran Point

canal. If these works are completed, a dam will be built from the foot of Long Sault island to the head of Barnhart island. This is merely a diversion dam to deflect the water from the site of the present rapids down to the foot of Barnhart island, where the power-houses will be built. The channel between Barnhart island and Sheek island, known as Little River channel, will be deepened and widened; the ultimate width will be about a thousand feet. At the foot of Barnhart island will be built a dam, between the American shore, which is on the island, and the Canadian shore; and adjoining this dam will be built a power-house opposite lock 20. A canal will be excavated across the foot of Barnhart island, and one, or possibly two power-houses, will be built at this point. I call to your attention particularly, that we are following absolutely the fundamental principles of natural conservation of nature's resources, in that at the inception of this plan, we have provided for ultimately developing all of the power that is available at this point. Probably—almost inevitably—we will all be dead then, for it is a long time in the future, but our grand-children will be able to see the day when all the power available at this point can be developed.

CHAIRMAN GIBBONS: How many horse-power?

MR. RICKEY: There is approximately 600,000 horse-power available at this point, and for that reason I say one, or possibly two, power-houses would be built at the foot of Barnhart island. Little River channel will be used, under the amended plan, really as a power canal; under the former plan it was to be used as a ship canal. That, briefly, gives a general description of the plan. Now let us see what results will follow. The South Sault channel will be widened to about 600 feet in width. There will be a minimum depth of twenty to twenty-five feet of water throughout the entire length of this channel. Boats coming down the river, instead of passing on the north side of Croil island, will pass to the south of it and across to the site of the present Dodge shoal—which will be removed to a depth of 30 feet—and then come down the South Sault channel. It will not be a canal; it will be a river channel 600 feet wide, and boats will come down that channel, pass through a single lock, and down through the river. You may say that the current is too swift on the south side of Barnhart island for the boats to come up the channel south of this island. That is not the case; 95 per cent. of the total volume of water in the river, having passed through the rapids and through the South Sault channel, passes on the south side of Barnhart island in the main channel. The upper dam between the foot of Long Sault island and the head of Barnhart island and the lower dam, having about the same length, will discharge approximately equal quantities of water. Consequently, we propose to divert half of the water that now flows past the south side of Barnhart island through Little River channel, and as the water on the south side of Barnhart

island is now approximately 60 feet deep—40 feet deep the entire length of the island*—the depth will be decreased very little, and hence the velocity will be cut in two.* In other words, where there is now an eight-mile current on the south side of Barnhart island there will be only a four-mile current,† and all boats of every kind on the river can go against a four-mile current with their tows; otherwise they cannot get up the river at all.

MR. J. A. HUTCHESON, K.C.: What is the present width and depth of the South Sault?

MR. RICKEY: That is pretty hard to answer, because sometimes it is only seven or eight feet deep at Dodge shoal. It is about a thousand feet wide at that point. There are other places where it is a thousand feet wide and forty or fifty feet deep. What we will provide at the South Sault channel is a canal 600 feet wide with a minimum depth of at least 25 feet. When these dams are built the water opposite lock 21 will be raised about 2 $\frac{8}{10}$ feet. The average depth of the river at this point is about 25 feet. In other words, we only increase the depth of the water about ten per cent. We will reduce the velocity of the current in inverse ratio, or about ten per cent. There is, however, at the entrance to the Cornwall canal a dangerous side-draught, so that the tows coming down-stream meet boats coming up-stream at the entrance to the canal; those going down-stream have a dangerous passage there, and to the extent that we raise the water at this point, so will we decrease that side draught and improve navigation. Another point that is of vital interest: just above lock 20 there is a difference of 35 feet head between the level of the water in the canal and the present level in Little river. When the dams are built and the water is raised to the same level at the head of Sheek island as now exists in the Cornwall canal north of Sheek island, likewise we will have the same corresponding level just south of the guard-lock in the Cornwall canal. All danger of wash-out of the banks of the Cornwall canal between locks 20 and 21 will be forever removed, and that is a very important point. There was a wash-out some years ago at this point. I can show you a place in the Cornwall canal where the bank is so soft that you can poke a stick down in it five or six feet, without pressing very hard. There is another place where there is a leak in the bank of the canal just below lock 20, and a barrel has been set in the bank, and that is where the cows get their daily drink. I think in general that the rivers—

CHAIRMAN GIBBONS: Tell us approximately how much power would be developed by the Canadian company, and how much by the American company.

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* It is, in places, less than 25 feet deep.

† This is a surprising statement, and without proof one that would not be entitled to general acceptance.—ED.

MR. RICKEY: I call to your particular attention the relative location of the Cornwall canal at this point, and the International Boundary line—this broken line indicated by my pointer—and how this boundary line lies within about 600 feet of the Cornwall canal at this point. We purpose building as large a power-house in Canada as can be built, and that power-house will have about 100,000 horse-power capacity. In order to do that, we propose to excavate a very high knoll at the northeasterly end of Barnhart island, cutting back some 800 feet from the shore in order to give passageway for the water coming over at that point. Answering your question directly, then, this power-house will be as large as we can make it; it will have about 100,000 horse-power capacity.

CHAIRMAN GIBBONS: Then the amount of the development on the American side will in the end be about six times as great; is that the position?

MR. RICKEY: About five times as great.

CHAIRMAN GIBBONS: So that if we are to have an equal division of the power, some special arrangement will have to be made whereby Canada will share in the distribution of the power on the American side?

MR. RICKEY: Yes, sir; and that is caused solely by the relative location of the International Boundary line, which of course cannot be shifted, and the Cornwall canal with which we cannot interfere.

COMMISSIONER STEWART: Would it be possible to put the dam in any other place, so that the power could be more evenly distributed?

MR. RICKEY: I have made quite a number of studies and spent considerable time on that, and have been unable to devise any situation that is better than this, that will accomplish the purpose that you just mention.

CHAIRMAN GIBBONS: What about damming at Cornwall island lower down? By putting the dams there, if it were feasible, there could be about an equal distribution on both sides, could there not?

MR. RICKEY: Yes sir, but there is no ledge there, to provide a foundation for dams. When the Cornwall bridge-pier washed out two years ago, borings were made there to locate a new pier, and I think they went down something like 75 feet below water without striking ledge. I omitted to mention that all these structures—the power-house as well as gates, retaining walls, and everything—will rest on a solid limestone ledge. There is no soft foundation anywhere. We have spent a great deal of money to determine the location of those ledges.

COMMISSIONER CLINTON: Does the location of the power-house on the American side of the boundary line or the Canadian side of the boundary line have the slightest effect on the distribution of the power between the two countries?

MR. RICKEY: Not that I can see.

CHAIRMAN GIBBONS: There is a point there that might be borne in mind; it is one of the matters that will have to be taken care of if the principle of the Commission is carried out—and I answer it now because it has to be considered by the promoters of this scheme if it is carried out. Each country has the right, without an absolute arrangement to prohibit the export of power; and if these power-houses are on the American side there is no power in Canada that can compel them to distribute power in this country. There would have to be some special arrangement if the principle of equal division is to be carried out in this place.

COMMISSIONER CLINTON: Allow me to correct you. In the United States we cannot impose export duties.

CHAIRMAN GIBBONS: I am very glad to hear it. I had overlooked that. We have that power.

MR. MCCARTHY: We have exercised it, too.

CHAIRMAN GIBBONS: You may acquire it in the long hereafter. I think it is just as well to provide for it.

MR. IRWIN HILLIARD, K.C.: I would like to ask Mr. Rickey the fall from the new lock to Cornwall in the south channel.

MR. RICKEY: About 18 feet.

MR. HILLIARD: How can you slow the water, even if you divert some of it, in an eighteen-foot fall?

MR. RICKEY: I understood you to mean as it is to-day. Do you mean under future conditions?

MR. HILLIARD: Yes.

MR. RICKEY: If you let me consult my charts I can tell you that exactly. (After consulting charts). It would be 11 feet.

MR. HILLIARD: Anybody who knows anything about drainage would know that that is a tremendous fall, so that that point of decreasing the current one-half in the South Sault is certainly controversial.

MR. RICKEY: Yes, sir; but you must understand the hydraulics of the St. Lawrence river. There are places—for instance through Farran Point channel—where there is a fall of four feet in a distance of a mile, and the boats go right through it. Here is a distance of nearly twelve miles.

MR. HILLIARD: Not twelve miles from there to Cornwall?

MR. RICKEY: It is something like three and a half down to the foot of Barnhart island, and from there to Cornwall at the lower dock is, I would say 5 miles, or 8½ miles.

MR. HILLIARD: The answer to that is this, that at Farran Point they take the cross-current. Anybody rowing on the river does that. What we say is that that is one of the controversial points, especially looking at the crookedness of the channel.

MR. RICKEY: If we get to discussing back-water and velocity and everything we are not going to get anywhere in this meeting. I have all my computations and data, which I will be only too glad to give to the Commission.

MR. RUCKER:* What is the speed of the current between Cornwall island and Cornwall? Have you that determination?

MR. RICKEY: The average velocity from a point opposite the middle of Polly gut to the point opposite the west boundary of Cornwall is 3·7 miles per hour. The average velocity from a point west of the boundary of Cornwall to a point opposite lock 15 is 4·18 miles per hour. These points were determined by allowing a boat to drift down the stream on a calm day, and noting farm houses, bridges, and other prominent points, and plotting them on a map, and computing the distances and the time against the rate.

MR. EUGENE LAFLEUR, K.C.: When were those computations made that you have in your hand?

MR. RICKEY: I cannot give you the exact date without referring to my notes. It was about September, 1907, when that drifting test was made.

MR. LAFLEUR: Were those accepted at any of the meetings of the International Waterways Commission?

MR. RICKEY: I cannot answer that. I do not remember.

MR. LAFLEUR: As far as I am instructed, the only thing that was shown was the blue-print which is on the table there.

MR. RICKEY: I referred to that blue-print to refresh my memory. We have spoken about the velocities of those currents and threshed that matter all over.

MR. LAFLEUR: You said the only new feature in your present project was that you were conserving the Cornwall canal. I understood you to say that that is the new feature in the project as at present submitted.

MR. RICKEY: I did not want to take the time of the meeting today to explain where this plan differs from the original plan, so I just said briefly that south of the boundary-line the plan was the same.

MR. LAFLEUR: Does it differ materially from the old project, apart from the conservation of the Cornwall canal?

MR. RICKEY: Oh, yes.

MR. LAFLEUR: In many respects?

MR. RICKEY: Not in many respects. The location of the Canadian power-house is just as it was before. I can indicate, if you wish, just where the changes are. Perhaps I will do that; it will only take a

* Stenographic error. It is probable that either Mr. Hilliard or Mr. Lafleur asked the question.

moment. Under our original plan, Little River channel was enlarged just as it is here. Then we asked permission to cut out the dam at the west end of Sheek island, to cut out the dam at the eastern end of Sheek island, and to build a lock between the Cornwall canal and the Little River canal, so called, each at a point about one mile west of lock 20. Other than that, this plan is the same.

MR. LAFLEUR: The old project that you have just been describing was abandoned a long time ago?

MR. RICKEY: That was abandoned, yes, quite a considerable—

MR. LAFLEUR: It was abandoned when the Commission held its sitting in Toronto in November, 1908?

MR. MCCARTHY: No, it was not.

MR. LAFLEUR: I see that Mr. McCarthy stated there that there would be two methods of going up and down the river; the boats would use the Cornwall canal as well as the South branch—just the same as you are proposing now.

MR. MCCARTHY: That is identical.

MR. RICKEY: That is what I say now; you can always use the Cornwall canal just as you do now; you can also use the South Sault under the proposed plan; giving two alternate routes, so that no matter what happens to the Cornwall canal, the navigation of the St. Lawrence will not be interfered with.

MR. LAFLEUR: You recollect that at that meeting in November, 1908, you undertook to prepare further plans and data?

MR. RICKEY: Yes sir.

MR. LAFLEUR: Did you prepare them?

MR. RICKEY: Yes sir.

MR. LAFLEUR: And did you furnish them to any of the interested parties?

MR. RICKEY: Yes.

MR. LAFLEUR: Will you tell me what you furnished?

MR. RICKEY: I furnished a general outline plan such as this.

MR. LAFLEUR: Could any engineer criticize that plan?

MR. RICKEY: A competent engineer can.

MR. LAFLEUR: You think that from that plan—which is, I suppose, just an enlargement of the Admiralty chart—any engineer could say whether these works were feasible and were likely to interfere with navigation?

MR. RICKEY: Any engineer who knows the site can take that plan and say whether or not it is feasible.

MR. LAFLEUR: How was that plan made? Was it made by surveys on the ground?

MR. RICKEY: Yes.

MR. LAFLEUR: Is that your plan?

MR. RICKEY: Yes.

MR. LAFLEUR: And is that the same as the blue-print that has been handed to us?

MR. RICKEY: Exactly. It is off the same negative.

MR. LAFLEUR: You say from that plan or the blue-print any competent engineer could make up his mind as to the feasibility of the scheme, and as to interference with navigation?

MR. RICKEY: Knowing the characteristics of the site, mind you.

MR. LAFLEUR: Then the characteristics of the site are not indicated on the plan?

MR. RICKEY: You have to have a general knowledge of the location.

MR. LAFLEUR: Are the currents shown on that plan?

MR. RICKEY: No.

MR. LAFLEUR: Or on the blue-print?

MR. RICKEY: No.

MR. LAFLEUR: Are the heights shown?

MR. RICKEY: No.

MR. LAFLEUR: Will you say that without knowing these features a competent engineer can make up his mind either as to the feasibility of the scheme or as to its interference with navigation? He would have to know those features; he would not get them from your plan or from any material that you have furnished?

MR. RICKEY: What we submitted was the general plan showing the proposed arrangements, and that is what you see on the maps here.

MR. LAFLEUR: Mr. Chairman and gentlemen of the Waterways Commission, I may say that I appear on behalf of the Board of Trade in Montreal, and I will have the honour at a later stage of the proceedings of submitting to you our views on the subject. I may say incidentally that I do not represent any private interests, and that we have endeavoured to look at this matter in a dispassionate way, and as broadly as possible, but that, so far, we have been hampered by the lack of sufficient information; but I am instructed that that information is wholly inadequate to enable them to make up their minds either as to the practicability of the scheme in the crude form in which it is presented, or as to the possible dangers to navigation, and as to the results in the way of flooding the lands, etc. While my friend, Mr. McCarthy imagines that we are merely concerned with the level of the water at Montreal, I must remind you, Mr. Chairman and gentlemen, that we take a wider view of our duties and responsibilities. We think that the welfare of Canada is the welfare of Montreal, and that anything that interferes with the navigation above, as well as below, Montreal is of the highest interest to our citizens, as it is to the country at large. Therefore we are apprehensive that, for lack of information which has been asked for again and again, and as we think has never been furnished—

MR. MCCARTHY: What do you mean by "again and again"?

CHAIRMAN GIBBONS: I should like General Ernst, the engineer of our Commission, to be present when these criticisms are made. I, like yourself, am a lawyer. I understand that all this is subject to the approval of the Government engineers of both countries; that this Commission will not attempt to deal at present, and is not dealing at all, with any particular plan. I quite see your point, that whether any plan is feasible may depend upon some of those questions that you have asked. That matter has been considered by the engineers connected with our Commission, but the details and the working out of the conditions are all subsequent matters entirely. The first question is: Is it permissible at all, under these conditions, to make this development? The general question is now being dealt with. Certainly the engineers of both Governments will have to consent and approve, and possibly this Commission will approve of any detailed plan.

MR. LAFLEUR: I quite appreciate what you have just said Mr. Chairman, but it does seem to me—and I am so instructed by competent engineers—that the details are of the very essence of the matter; that you cannot say whether or not the proposed scheme is going to interfere with navigation, or is going to injuriously affect the property situated above the proposed development, unless you have a detailed plan giving the particulars that are necessary in order to arrive at a conclusion. It does not seem to me to be merely a matter of detail to be settled afterwards. It seems to me to be of vital importance to settle the project. I am not alone in this view. I have consulted with various interests who are more or less opposed to this scheme, and I understand that we are unanimous in feeling that up to this time we have not got the information that is necessary to enable us to offer any criticism on the plan. You recollect that my friend Mr. McCarthy said a moment ago that no engineer has been heard of who makes the slightest objection to the feasibility of the scheme, or who pretends that navigation is going to be interfered with. Well, how can an engineer do that until we have got the information we are now seeking? And I would like to draw your attention to what passed at the last meeting, where that very request was made, and where an understanding was arrived at that these data should be furnished; and we have been waiting ever since for these data. I take the liberty, if I am not occupying too much time, to refer to pages 42 and 43 of those proceedings, where Mr. Rickey admitted that he had not the particulars.

At this juncture—4.15 p.m.—General Ernst and Professor Haskell arrived and took their seats.

CHAIRMAN GIBBONS: Now, that we are all here, I will have a chance to talk to General Ernst in relation to the matter you speak of, Mr. Lafleur. I may say that the Government engineers have seen the

plans suggested. I am not at liberty to submit their reports, which are confidential. They are the only ones that are available, in a general way, to the Canadian section. The gentlemen who were at Montreal will bear me out that I was very strong in pressing the suggestion that the boards interested appoint engineers; and I, at that time, obtained the consent of the Government to pay the expense of any such experts out of the public funds. That offer was not availed of, perhaps for perfectly good reasons; but, now that we are here, I think we had better let the discussion go on. I think it would be very unfortunate to block the proceedings at this time. I think it would be better to go on and hear what the people have to say in regard to this proposition.

Mr. Lafleur: I agree with what you say, Mr. Chairman. I am not alone in this view. The Toronto Board of Trade are in the same position as we are. They are quite desirous of giving the matter a dispassionate consideration, in the interests of the public purely. But they have been quite unable, from the material so far supplied, to arrive at any conclusion. I think the President of the Toronto Board of Trade, who is here, will agree with what I say—that we have been experiencing serious difficulty in consequence of the present condition of the project, which does not seem to me, so far as I can judge from the remarks, to have advanced one step since the meeting of November, 1908. I have read what passed at that meeting, what was undertaken to be furnished, and I say that nothing of that kind appears to have been done.

Mr. McCarthy: That is not correct.

Chairman Gibbons: That is just not correct in this sense: They have in the meantime supplied to the engineers of the Government, the three leading engineers, these plans. They have reported to the Government in regard to that. It is perfectly true that so far as this Commission is concerned we have heard nothing of it for some time. The matter was sought to be brought up at Buffalo, and was adjourned here; but all these matters will be dealt with, I think, by my friend General Ernst much more ably than Mr. Clinton and myself—for he is also a lawyer—will be able to deal with them. I think if we would hear the gentlemen who are present, deal with the general proposition in the meantime, it would be more satisfactory.

Mr. Francis King: In deference, Mr. Chairman, to what you have said, I think I ought to keep my seat; but in order that my clients may enjoy the full advantage of what you have said, I ought to say a word. General Ernst will probably be able to bear out what I say in regard to the understanding at the meeting in the King Edward hotel in 1908. At that time, we were in the identical position that we occupy to-day with the one exception, so far as I can gather in the last fifteen months, that the second canal, that is now to

run north of Sheek island, was to be diverted into the Little river on the Canadian side. At that time it was very clearly understood over the table, and it is on the record, that plans and details of the fullest nature were to be laid before us so that we could avoid this discussion which the chair is now anxious to avoid; and until this date we have not one iota of information that gives us what we wanted. We had *that* plan, and I had a little pamphlet with some letter-press in it which did not even tell me whether the Farran Point canal was to be obliterated or was to remain. I think we may be quite satisfied on all hands if we treat the present meeting as one for the purpose of eliciting that information. Then, if so, let me refer to something said by Mr. Rickey a minute ago. The question was asked as to whether or not the current or the depth at a certain point would be altered, and he said it was very unfortunate if that discussion would go on at this stage. Now, it should either go on the record or we should be supplied with that information so that we could make our case for or against. With reference to Mr. McCarthy, I think he misunderstood our position to some extent. It is information that we are seeking. We are not all irrevocably opposed to this thing. There are freight interests that might think it was a good thing; but we want information, and if this meeting could adjourn for the purpose of getting the information and then could decide, it would be well.

Mr. G. H. Watson, K.C.: I wish to join with Mr. Lafleur in the view he has expressed. I understand—if I am not quite accurate you can correct me, no doubt—that the object of this meeting is to enable your Commission to enquire and to report to the Governor in Council as to the feasibility of this commercial project to dam the waters of the river.

Chairman Gibbons: Not in detail.

Mr. Watson: Well, the feasibility of the proposal; and we were kindly invited by you to attend and to state our views. Of course the feasibility, or non-feasibility, of it depends very largely upon the terms and conditions involved in its proposal, and without the particulars and details of that it is very difficult for us to do justice to our clients or to ourselves in endeavouring to state an answer. You, Mr. Chairman, know that in court procedure we require, particularly in answer, that the full case of the other side should be stated before we are called upon to answer. Now, is it not so that in this matter, which is one of very great importance, of vital importance to many interests, we should be fully seized of all the facts and details to enable us faithfully and properly to present an answer which may be of advantage to you and to your Board in reaching a conclusion? I would, therefore, respectfully submit to you, Mr. Chairman and gentlemen, that the further consideration of the matter should be postponed until those details are pre-

sented to us, and until we have had an opportunity of examining them, and have the advantage and benefit of engineering skill; we may then present the circumstances and facts to you in a proper and intelligible way.

MR. R. C. SMITH: I take it, Mr. Chairman, that we are invited here in order to represent fully to you the various interests that are probably affected by this scheme. Now, if we are not furnished the information which in the most formal manner was promised to be furnished, I say, it is quite impossible for any interest to state its position before this Board. Mr. John Kennedy—

MR. MCCARTHY: What interest do you represent?

MR. R. C. SMITH: I represent especially the Richelieu & Ontario Navigation Co. Mr. John Kennedy is an engineer who has had, I venture to say, more experience as to the action of moving water and as to the action of ice, than any other; and Mr. John Kennedy this very day informed me that no engineer lives who could form any opinion whatever or give any rational statement of his position upon the information that is furnished up to this date. Mr. Kennedy is in the room.

HON. ADAM BECK: Mr. Chairman, speaking for the province of Ontario we find ourselves in a position very similar to that of the gentlemen who have addressed you. We have to-day no details or description of any kind that will enable our engineers to look into the matter as to the effect this project will have on the shores of the province of Ontario. You were kind enough to give me a map, I presume a copy of the blueprint before us, and one other, and some description of the undertaking, which I submitted to the engineers of the Hydro-Electric Commission. They reported that they were unable, with the information at hand, to give any definite statement of what it would mean to the Province. Of course the Province has other contentious questions to bring before you. We object seriously from a provincial standpoint that we have not been considered, Mr. Chairman, though I believe the state of New York was considered by the United States Government. We have not had any opportunity of looking into the matter whatever. Therefore I wish, without any intention of delaying or blocking the meeting in any way, to make this statement on behalf of the Province.

MR. HILLIARD: I wish to state that I hold a brief for the Ontario Government on these contentious questions. I do not know that it is opportune to discuss them now, but I wish before the session closes to have an opportunity of entering the protest of the Province in relation to what Mr. Beck has hinted at.

MR. B. CUMBERLAND: On behalf of the city of Toronto I would say that the Board of Trade, representing not simply the city of Toronto, but a large membership from all parts of the Province—from Chatham,

Walkerville, London, Woodstock, Guelph, Hamilton, Brockville and other points—desire to join in the protest which has already been placed before you. In 1907 the Board asked for the fullest consideration, and expected to have the plan submitted to them. Upon receiving the notice of this meeting stating it was called to consider plans, a request was made to your Board for the submission of those plans.

CHAIRMAN GIBBONS: I never heard of it.

MR. CUMBERLAND: The reply received was that plans might be obtained from the promoters, but, in all probability, not in time for this meeting. That in the meantime, practically nothing had been done, and it was the same old proposition which would be again brought up. I submit, sir, on behalf of the Board of Trade, that we should have had those plans in order that we might give the matter full consideration. I also submit that we have learned to-day that while the Commission may have been resting, the promoters have been active; and we further learn—which I think is news to us all—that the promoters have been in communication with the Canadian Government engineers. If I read the records of the past at all, it was understood by all parties that the fullest information would be given to them and that, if there were any engineering questions, they should have the fullest opportunity of entering into it themselves. I beg respectfully, sir, to make my protest. I would say that if there are any—

CHAIRMAN GIBBONS: The right to be heard on questions that might be taken up afterwards, is reserved.

MR. HUTCHESON: May we not deal with the expediency of this question, on the assumption that it is a feasible one? I quite admit that the detail is to a certain degree interwoven with the question of expediency; but if I were conducting a case in court and were given an opportunity of having an engineer examine the ground and test the matter by surveys, levels, measurements, tests of current, velocity, and everything of that sort, not at my own expense but at the expense of the Government, and failed during a period of more than a year to avail myself of that opportunity, I should think I would come to court with a very lame case if I should again ask a postponement for lack of information.

MR. KING: That was on a different set of plans.

CHAIRMAN GIBBONS: At the meeting in Buffalo I raised this question myself, that in the absence of details it was impossible to finally decide this matter. The other members of the Commission thought that as the matter was coming before Congress, and had to be dealt with there on the general principle, all that was asked of the Commission was whether there was any objection to the Bill in Congress. That Bill only provides for the erection of these dams subject to the approval of the Government of the Dominion of Canada and also subject to the approval

of the Secretary of War for the United States. It was urged upon me by my confrères, and I think rightly, that there was no reason why this general question should not be disposed of. The desire was that we should have acted at Buffalo. I objected to any action at all until we had time to hear the general objections to the scheme. Now, the Act introduced into Congress makes special provision that nothing is to be done without the consent of the Dominion of Canada; and the Bill as amended by Congress—if our Commission report at all favourably to the project—will not only make provision that these plans should be approved of by the two Governments, but will make provision also for carrying out the principle which we have enunciated, of protecting Canadian interests, the interests of both countries, with an equal division of this power. We have had to-day the general statements: my learned friends have spoken as if they could not give any decision because they did not have information; we have had numerous resolutions passed by people who had reasons we supposed, for passing them, and we had hoped that they would come here and give us those reasons. They did come to conclusions. I certainly did not know that anybody had asked for plans. It is the first I heard of it. I think everybody who attended the meeting in Montreal will agree that I personally made every effort to have an engineer appointed, and to have the strictest enquiry made into this matter. There has been no attempt by any member of this Commission to rush things. At the meeting in Buffalo my confrères thought that we ought to decide the preliminary matter whether under certain conditions, and only under certain conditions, this work should go on. Now, I think it would be very foolish, having come to this meeting with all these people, if we could not thresh out these generalities now, and I can assure you that you need not be the slightest bit afraid that anybody will consent to go on with this work until the details are fully looked into and the work is approved of—as it must be approved of, by the Governments at Washington and at Ottawa—and possibly also by this Commission if these two Governments refer to us to approve of those details, Now, I think we can go on with our general discussion, and I think you can leave those details to be looked after by those on whom the obligation rests.

Mr. F. E. Meredith, K.C.: Acting for the Shipping Federation of Canada it appears to me that at present we have a certain amount of information about this scheme. We have made up our minds from the information that we have, but we have not got the whole information. Now, I do not think it wise for anybody to be asked to give an opinion unless he has the whole information. You have been good enough to ask different corporations, among them the one for whom I act, to give expression to their feelings. Now, we learn to-day, that we have not all the informa-

tion about this scheme, but, that, on the contrary, apparently the only people who have got it are the Government engineers, who are no doubt very capable people. But it seems to me that in order to understand this thing properly we ought to have it put before us with the same information as the Government engineers have been put in possession of, in order that we may intelligently give our views on the situation as it is to-day. (Hear hear) It seems to me to be absolutely useless for people to be called here and asked to give their views, and not to be told the whole thing. It is merely giving an opinion on a half-stated case, and I submit that those plans that have been submitted to the Government engineers should have been submitted to the parties interested. That was understood a year ago in the King Edward hotel and it has not been done. What the Shipping Federation are looking for is the whole scheme in order that they may intelligently ascertain from people who understand these matters whether the scheme is, on the whole, going to be for the benefit of Canada in so far as navigation is concerned; not for any local part, but for the whole of Canada.

MR. HILLIARD: As the position the province of Ontario takes, goes to the root of the whole matter in so far as constitutional questions are concerned, and not on any question of detail, I propose at this stage, if you will permit me, to enunciate—

CHAIRMAN GIBBONS: No, I do not think I will permit you. I think we will go on in the usual order and hear those who are in favour of the Bill, and then we will hear the answer. (Hear, hear). I have great respect for you, but I think we still desire to hear what those in favour of this Bill have to say, and then hear as fully as you like, from you and other gentlemen who are opposed to it.

MR. WATSON: Perhaps in connection with that you might hear those who are in favour of the proposition—

SENATOR DERBYSHIRE: I want to know if the Chairman is to be obeyed.

CHAIRMAN GIBBONS: The Chairman will take care of himself, if you will allow him. (Laughter and applause). Mr. McCarthy, if you will tell me the next gentleman you wish to address the meeting.

MR. MCCARTHY: Mr. Plummer.

MR. KING: I hate to repeat myself, but we had some questions we wanted to ask.

CHAIRMAN GIBBONS: You should have the privilege of asking questions as you please.

MR. KING: How far up the St. Lawrence do you propose to raise the level? You mention two feet and some inches at lock 21; how much further will the change in the level take place?

MR. RICKEY: What do you mean by the change of level? A millionth of an inch, or two inches, or three inches?

MR. KING: An inch or so.

MR. RICKEY: At Bradford point, above Farran Point, and, roughly, about five miles west of Croil island, the back-water rise will be approximately six inches, and at Morrisburg it will be a little over an inch, or possibly two inches; say between one and two inches.

MR. KING: Then you do away with the necessity for the Farran Point canal?

MR. RICKEY: No sir.

MR. KING: There will still be some current there?

MR. RICKEY: There will still be some current, but it will be reduced at the Farran Point canal.

MR. KING: And navigable by all boats going up and down the St. Lawrence?

MR. RICKEY: You mean on the outside channel?

MR. KING: You know only some of our boats can now go up Farran channel.

MR. RICKEY: It will not be materially reduced; it may be improved. The back-water rise will be only approximately a foot. It will reduce the current about four per cent.

MR. MCCARTHY: Mr. Plummer.

MR. FRANK PLUMMER: I understand this is to be dealt with just in a general way; and as representing a freight interest I would say that if we have proper assurance that the present channels will not be interfered with; that the proposed lock on the American side will be open seven days in the week, or six days if Sunday is not allowed by law; and that it is free to Canadian boats; then as a freight interest we are in favour absolutely. (Hear, hear). And I speak as a representative of what we call the Lake Freight Association, which includes the majority of the package freighters on Canadian freight from Montreal to Fort William and return (Hear, hear). That is all I can say in a general way. We are distinctly in favour of it if it fulfils such conditions.

MR. W. C. MACLAREN: Mr. Chairman, and members of the Waterways Commission, I have the honour to represent, as President, the Brockville Board of Trade, also the Trades and Labour Council, the manufacturing industries and industrial activities of the town of Brockville. I might say at the outset that all those interests in Brockville are a unit unquestionably in favour of this scheme as outlined to-day. We are here to voice our opinions in favour of this plan, and to ask that favourable consideration be given to the granting of this Charter to the Long Sault Development Company. Geographically, we are situated on the height of land between Pennsylvania and Nova Scotia. We, therefore, have to pay the highest freight for our coal. It costs us over $40 per horse-power for ten hours to produce power industrially in that locality. If we get electric power there we hope to be able to reduce that cost to

$15 or $18 per horse-power for 24 hours. Now, then, we think that is worthy of considerable attention from an industrial standpoint; therefore we ask that this point be given very favourable consideration. It has been pointed out that electric power is a substitute for coal, and is commonly called "white coal"; and if that is the case, then we have at our doors at Brockville a great deal of that natural resource of Canada—white coal. Under the arrangement, I presume we can get from there at least 300,000 h.p., to be developed there for Canadian use. The conservation of our natural resources is at present occupying a great deal of the national attention. It is said that coal is one of the greatest of those natural resources; and if by utilizing electric power instead of coal we can save for other parts of Canada where coal is used, and where they have no electric power; then we are going a long way towards conserving one of our great natural resources by using power where power can be used, in those localities and parts of Canada where power is, in order to leave the coal in our national deposits for those parts of Canada where electric power is not developed. This plan of the Long Sault Company also conserves the water-power of Canada. It is, as I understand it, on the American side of the International Boundary. This power is largely in the United States. Now, if we can by using the other fellow's material save our own material, surely we are conserving it. Therefore, I think that if we use the power of the United States instead of Canadian power, to that extent that we use American power we are conserving our own. In this way we can help the conservation of our natural resources in water-power by utilizing the power from the United States. This proposition could be illustrated conversely by the pulp industry at Fort Frances. We notice how our Canadian pulp industry is affected there. If one goes to Fort Frances he can see on the opposite side of the line large pulp mills in Minnesota in the United States, developed by United States capital, utilizing United States labour, making profit for the Americans and drawing their raw materials from Canada. Now, we claim that they are conserving their own national resources of pulp wood, but they are consuming ours. We therefore think conversely, that if we can consume the power from the United States we are, at that point in particular, conserving our own, and leaving all the power to the north of us for that part of eastern Ontario which needs power as badly as we do.

Now, coming down more particularly to our own interests industrially, I might say that in Brockville we had a few years ago an American concern come there and start a plant, which they operated for a considerable period of time. There were rumors that they were going to leave Brockville and go to another part of Ontario where power could be had. We offered them $50,000 of a bonus to stay; we offered

them free light, free water and exemption from taxes; but those inducements, large as we thought them at the time, were of no consideration to them whatever, and they moved to western Ontario where they could get power. Another industry that we had hoped to keep in Brockville, because local capital is largely interested in the concern, left us and took with them fifty of our people to Welland. The other concern that I spoke of took 150 of our people, and at the present time they have in their employ, as I understand it, nearly 3,000 people. All this has been lost to Brockville. At the present time our own factories have promised definitely that if we can get electrical power there they will largely increase their institutions. Therefore we think that these are great and weighty reasons why that part of the St. Lawrence and that part of eastern Ontario are deeply interested in this question. This power also, from the larger standpoint, undoubtedly trends towards the electrification, as it were, of Canada, and will also add to the general comfort of the public by doing away with a great many of the inconveniences which at the present time are due to using coal.

It will also, I think, conserve another of our natural resources in doing away with the sad ravages from fire along the routes that those railways, propelled by electric power, will traverse. It has been said publicly, and perhaps will be used as an argument by the Richelieu and Ontario Navigation Company, or other interests, that the scenery will be affected. Mr. McCarthy has anticipated that. Now, I think we feel keenly the answer he has given to an argument of that kind. We feel that he has fully answered that by showing that the scenery will be improved. When those boats go down through the South Sault channel and through that lock and travellers can see 3,800 feet of a dam, over which will fall ten feet of water, they will view one of the finest sights in the world. When they come through the largest lift-lock in the world they will also have something to attract travellers to that part of the country. These are things that I think should be considered from the tourists standpoint. There will be a dam larger than the Assuan or the Assiut dam in Egypt, and something that will attract tourists.

Navigation has been also referred to. Now, I take it as a fair principle that a river is not fairly navigable unless it is navigable both ways, up and down. At the present time the Long Sault is not navigable both ways. It is only navigable by light boats going down, but not returning. We think the freight question has been pretty well handled. We appreciate the views. We think it has been fairly shown that four and half hours can be saved to these freighters by this plan. That appeals to us from the shipping standpoint.

We in Brockville feel our position very keenly in regard to this matter, and I might say that that is why we have appeared here in such a large body representing our town. We might just as well have brought

a thousand, for as a whole we are as enthusiastic as we are as a deputation, and we think that anything that should be done to prevent this scheme from going through would be a step in a backward direction. We feel that there would have to be some very weighty reason indeed that would prevent this scheme from receiving favourable consideration at the hands of the Commission. We feel that it would have to be shown to be very perilous indeed to our country as a nation. Now, we take a larger view, as well as a local view, of this question, and we feel that Canada can only be made a nation, industrially and every other way, by having the several parts of it built up to contribute their share to the general progress of our great land. Now, if you will give us down the front in eastern Ontario an opportunity to get cheap power such as Toronto and western Ontario have, from Niagara falls, and as Montreal has, we will increase our industrial activities. At present we are starving for want of power, and our industries are handicapped, lagging, going to sleep. We want something of this kind to waken us up so that we can take part in the industrial development of our country; and it is only by developing the water-powers, that we can contribute to the general welfare of the whole, and that this nation can be built up. I ask you whether it is fair that one boat, taking 3½ minutes of each day, for only four months of the year, with 250 or 300 passengers on board for summer amusement, for the pleasant pastime of 'shooting the chutes,' should block the whole industrial development of eastern Ontario? (Great laughter and applause).

CHAIRMAN GIBBONS: I am sure we are all delighted to hear this. We would have been all broken-hearted if this meeting had not gone on. (Hear, hear and laughter).

MR. H. A. STEWART, K.C.: I am delighted to come on at a stage when this meeting is in such good temper. Mr. Maclaren has set forth our case so very well that it leaves very little for me to say. I appear here to-day on behalf of the Light and Power Department of Brockville. If you look up the records of municipal ownership you will find that we stand well to the front in this direction. We have dealt with our public utilities in a broad public way, and in that spirit we desire to approach this Commission to-day. The importance of power has been realized by us. We have reviewed the situation, and have had the advice of experts, and they tell us that our supply of power must come from the St. Lawrence. There are other sources, but they are not reliable, they are erratic, and we have been referred to the St. Lawrence for our sources of power. The proposition now before you, sir, will give us the power of which we are in so much need. We also appreciate the singular advantage of the St. Lawrence; it would be strange indeed if, living there, we did not. We love the sight of the passing ships and the commerce of the river, and we would be the very

first to rush to its defence in case of attack; but, we submit, after a careful examination of this proposition, after going over the ground, that it will be found that navigation is not impeded, but on the contrary that it is helped. Now, we have realized that this power has simply been wasting there, and we believe that the proper way to conserve it is to develop it; and that is what we ask. We have been impatient of the delay. We find in western Ontario there has been development, and nothing on our part. We are not asking for the pledging of public credit or the spending of public money; we simply ask that the Company that have the money and the faith to do the work be permitted to do it, and give us this power. I do not think a better proposition, from a public standpoint, could be submitted to any body of men. Now, we are very much in earnest about this. There are eighteen or twenty of us here representing the business interests of Brockville, and we are sure that these will receive sympathetic consideration. We say that navigation will be improved; that natural resources will be conserved; and that if this is carried through, with proper regulations and restrictions, we will have an example of international harmony and co-operation that will be very acceptable to all concerned. (Hear, hear and applause).

Mr. Hutcheson: I am glad to realize that much of the work that might have fallen on me has been so well done by those who have spoken before me, and that I may save myself a good deal of labour. I think I can dig up a few things that have not yet been said, or not fully said. One suggestion was made which raised a question in one's mind as to its being a case of eastern Ontario against western Ontario. (Hear, hear). I say they are in partnership. It is not a case of the west robbing the east so much as a case of the east helping the west by development of itself; for if we can develop the industries and make the goods and sell them, we must buy goods, and we will thus increase the traffic, the commerce of the country in every direction, and the whole commonwealth must thrive. (Hear, hear). The question of the consideration of scenic beauties is a matter which must not be left out; it is a matter which must be given its proper concern; it is a matter which must be given due weight, but not over due weight. I say that this country, this continent, cannot afford to neglect the development of its natural resources yet. We are a growing country and a growing continent. Our watchword is the future, not dwelling on the glories of the past, not admiration of natural scenery, but the development of the resources which we have, so that we may grow up to be two of the great nations living in harmony side by side. And if it comes to a question of scenic beauty, Mr. Chairman and gentlemen, let me ask you what appeals most to the hard headed men who love to take a tour on the money they have earned by their own labour? Do they not like to see an un-

dertaking, which has resulted from the harnessing of the natural resources of the world, and which has resulted in the making of money? Do they not like to see how man has triumphed over the powers of nature and has accomplished a result which may develop the nation? Give the other consideration its due importance, but do not overlook that consideration, because I submit it is a very important matter. Those thrifty millionaires from the United States, when they take their two weeks summer jaunt, and pass down the St. Lawrence, and see that mighty dam, and see a sheet of water falling over it, and heed and learn what has been accomplished, will in the years to come enjoy that much more than 'shooting the chutes,' as my friend Mr. Maclaren has said.

Then as to the question of natural resources. I am a great believer in the conservation of our natural resources; but it is so easy to draw a herring across the scent in a matter of that kind. Natural resources are of no avail, of course, unless developed. Now, when you develop a coal-mine or a gold-mine, after you have disembowelled that mine what have you left? A useless hole in the ground. Its contents are never replaced, you have exhausted its utility. After you have stripped the forest of its timbers, many, many years must elapse, before you ever have a forest fit to strip again. But here we have a power which merely needs harnessing, when it will go on to all eternity, and until we harness it, it is running to waste so far as material advantage is concerned. Now, who can suggest that when we farm out to two companies the right to develop and use that power we are giving away any natural resource? I say, who can suggest that, especially in view of the fact that it is to be a fair divide as to the power produced, and that each nation will share equally in that?

Coming back to our own little town of Brockville, on behalf of which I speak to-day, we do really need some help along material lines. We have a population of some 9,000 people. We have a pretty little town. We will spend money up to the limit of what we have, to make our town nice to look at, and a nice town to visit; but our tax-rate has crept up in the last nine years from 19 to 25 mills. Even the natural increase of population has been denied to us, because young men go where the field is wider, where they can grow up with the growing country and measure up with their surroundings. We cannot keep them or hope to keep them unless we get something which will induce them to remain at home. Now, gentlemen, surely many things will have to be said as against this proposition before they outweigh some things which myself and our other friends have said, and I can only hope that the procedure which we follow in the courts will to some extent be adopted here, and that in so far as new matter may arise from the objectors to the scheme, that some of us at least may have an opportunity to make some brief reply.

MR. R. A. PRINGLE, K.C.: It is very good natured of you to listen to me for a few moments. I will promise not to detain you many moments coming as I do from the little factory town of Cornwall, representing as I do the Cornwall Board of Trade and the corporation of the town of Cornwall. It is hardly necessary for me to say to you that we are a unit in favour of some scheme by which the Long Sault rapids may be harnessed and power may be developed. We have been touched a little with the microbe of power. A few years ago, after great opposition, a little power was developed, as you will see on that map, (indicating) what is known as Sheek Island dam. Even that little bit of power has been of enormous advantage to our community. Our population has increased; we have factories to-day—cotton-mills, paper-mills, and so on—employing some thousands of people. We have reached our limit. We find at our door a power, probably the greatest on the continent of America, awaiting the men who have confidence and capital to tackle its development. I am not going to dilate on that question, because I conceive from your utterances, Mr. Chairman, that you are here to-day largely as an advisory body, to deal largely with the general principle, as to the feasibility of the development of this power. You are not here to-day to meet the technical objection in regard to whether this plan is sufficient to protect all interests. I conceive—I may be wrong—that you are dealing broadly with the general principle: Is it feasible to grant or recommend the development of this power? Will the development of this power in any way affect navigation? I am a layman; I am not a mariner, nor am I an engineer; but I have lived on the banks of that river all my life, and it does not take a mariner, and it does not take an engineer to say, that it is absolutely feasible, and what has been pointed out to-day by the engineer, Mr. Rickey, is absolutely right, and that when that improvement is made, the navigation of the St. Lawrence river is improved to an enormous extent. (Hear, hear and applause). I did not take this position to-day: I took it years ago—that what our Government should have done in order to assist the navigation of the St. Lawrence river—and anyone who wishes, can look and find it on record—was to put in on the north side of that river, just below Sheek Island dam, one large lift-lock by which steamers could have climbed up the river instead of going through four or five locks, into Sheek Island dam, and in a matter of three-quarters of an hour passed along the Sault rapids, and gone about their business to the west. So it is no new matter with me. I have been convinced for years that that would be a great assistance to navigation. I repeat that it is not necessary to be an engineer or a mariner: any man who knows that location cannot come to any other conclusion, than that with a development such as that, the interest of navigation in this country will be improved. (Hear, hear).

I have heard technical objections here and technical objections there in regard to this matter. But even if you gentlemen, after hearing the representations made here, advise on the general principle that this scheme is feasible, if the engineers of the Dominion Government and the engineers of the American Government, with all their expert knowledge and care, come to the conclusion that there is any difficulty in the way of navigation, when they get down to the details which must be gone into, surely the Governments are not bound by your report. You are here simply to act in that advisory capacity, and not to spend year in and year out in going into details. I am getting grey hearing about this proposition. We have been looking forward to it for years. As Mr. McCarthy has properly said, it is not our heritage, nor is it the heritage of the United States; it is a joint heritage, and one that we are proud of. It has been placed right at our doors in that portion of Ontario and of northern New York for a purpose, and I believe the purpose is to give to us that industrial life which will build up eastern Ontario and northern New York. (Hear, hear). What do we see to-day at Massena? A little town almost opposite the town of Cornwall, a few years ago a "Sleepy Hollow." To-day, with that small amount of power which has been carried from the St. Lawrence across to the Grass river, you see an enormous industry employing hundreds of men, and many of our Canadian people over there in the employment of that company. (Hear, hear). What did we see in Cornwall? We saw come to our town a representative of one of the largest industries that is to-day in the Dominion of Canada to look into the matter of power. I personally went with the engineer over the whole district, and unfortunately, he had to report that the bringing in of an additional quantity of water from Hoople creek into Sheek island would be such an enormous expense that they could not consider it; and that company located in another section, and is to-day employing upwards of a thousand people. (Hear, hear.) Again, we saw the Singer Sewing Machine Company come to our town ready to locate. We could not give them power. Subsequently they went to St. Johns, Quebec. Is it any wonder, Mr. Chairman, that we, as a town come to you and say to you, "Have we not had delay enough? Has not this matter been presented to you for the past four years? Are you not now convinced as to the general principle? Are you not now convinced sufficiently to report that you believe the interests of navigation will not be affected, and leave the matter in the hands of our Government?" (Hear, hear). I am willing to submit to the men who are in control in Ottawa, no matter what party they belong to. (Hear, hear). I believe they are honest men, and will look after and preserve the interests of our Canadian people, just as the American Government will look after and conserve the interests of the American people. Pardon me, Mr. Chairman and gentlemen, for trespassing on your time, but this matter

is very much at heart with the people of eastern Ontario. (Hear, hear, and applause.)

MAYOR EVANSON: (Prescott.) Gentlemen, and members of the Waterways Commission, I do not appear here with any brief, as some of the gentlemen who were opposing the proceedings this afternoon seem to have. I am here as an ordinary citizen, one whom the citizens of the good town of Prescott saw fit to elect as their mayor at the recent election. I can tell any of you gentlemen who have not been there that Prescott is blessed with the best shipping advantages of any town in eastern Ontario.

A VOICE: Except Brockville.

MAYOR EVANSON: I bar no town whatever. (Laughter). I say Prescott is blessed with the best shipping facilities of any town in eastern Ontario, and I wish to show that its progress is retarded simply from the fact that we lack cheap power. You know, as well as I do, that any town is counted dead that is not seeking cheap power. That is what Prescott is seeking to-day, and that is the reason the citizens of Prescott asked me to appear here as their representative. Gentlemen, I assure you that if Prescott had the power it would be in a position to obtain if this scheme is carried out, that in ten years' time, in place of seeing the small town of some 3,500 inhabitants we have to-day, you will see a city of at least 10,000 inhabitants. I am sure that the inducements of the town of Brockville are all right, and that you will see there a city of 50,000. (Hear, hear). This is what we lack; we lack power. We have the two greatest railroads on the continent running into that town—the Grand Trunk and the Canadian Pacific. We have practically communication with the Central Vermont and the New York Central on the opposite side of the river. We have every boat that passes from the west, from Fort William and Duluth, to Montreal, passing by our doors. Gentlemen, why not place us in the position to ask those empty barges as they are returning west, to call into our port and take on a cargo that we will be able to manufacture in that town if we have this power? (Hear, hear). I can assure you, gentlemen, that every citizen in the eastern part of the province of Ontario, especially in the counties of Leeds and Grenville, are strongly in favour of the development of power at the Long Sault. (Hear, hear). The only objection that can arise, as I see, is that of spoiling the scenic beauty. That will be presented to you by the Richelieu & Ontario Navigation Company. Gentlemen, I say that in less than five years the Richelieu & Ontario Navigation Company will be advertising those dams as the greatest attraction that they have between Toronto and Montreal. (Hear, hear). In place of advertising the Sault rapids they will advertise those dams as their greatest attraction. Why, to-day the trip from Prescott to Montreal grows monotonous, because they have too many rapids. (Laughter) It is nothing but a

series of rapids. You get so tired of it you would rather travel by rail. Let us cut out one of the rapids, and give us power; that is what the eastern country wants. (Laughter and loud applause).

Mr. Henry Holgate, C.E.: About two years ago the St. Lawrence Power Company submitted their proposition to me for enquiry and advice and I must say that I treated it with a great deal of respect, knowing that we had to deal with the river St. Lawrence, and recognizing that the scheme was one which would be either an injury or a tremendous benefit, owing to the fact that it was not a local scheme. I did not consider it a local scheme as it dealt with the channel of the St. Lawrence river, which is important to the whole of Canada. I looked into the matter in connection with Mr. Rickey, and I can say that I conscientiously studied it, with the result that I came to a conclusion, after certain modifications which Mr. Rickey adopted, that the scheme as it stands to-day generally is quite practicable. I have taken full opportunity of discussing the general features of the whole scheme with the engineers of the Dominion Government, both individually and together, and the result has been that those gentlemen have come to our views of the matter; that their apparent opposition at the start was from lack of a clear understanding of the conditions, which have been explained to them since, and which has made them practically advocates of the scheme, instead of opponents. The question is a very important one, and as I said, cannot be considered as a local one. It must be considered in connection with the whole of the St. Lawrence, which is the most important waterway we have in Canada, and I could not bring myself to advocate anything that I thought would be detrimental to that route. I speak as a Canadian, particularly as a Montrealer, and from the engineering point of view, I can see nothing but good could come out of the scheme which may be developed at the Long Sault rapids. I am looking for the time when all the rapids on the St. Lawrence river will be treated in the same way (Hear, hear) and when our navigation will be in that river-bed and not through the canal system. The enlargement of the system of canals is not far from us, and the time is right upon us at present, to study the river St. Lawrence, with regard to the extension of such a system as is proposed here over the whole river from lake Ontario to the harbour of Montreal. I think my good old friend, Mr. John Kennedy, who was for a time Chief Engineer of the Harbour of Montreal, and is now their consulting Engineer, will agree, that with regard to any interference there might be with the harbour of Montreal, it is totally out of the question; and if I might quote some remarks that Mr. Kennedy made a few days ago, if anybody said it were impracticable to do this work on the St. Lawrence river such as is shown, it is because he—that is the person objecting—could not do it. The works are practic-

able. I am perfectly sure that when Mr. Kennedy has sufficiently studied the situation, he himself will endorse the plan; and any objections that he may have at the present time—I say it with deference to Mr. Kennedy—have been because he has not had sufficient time to look into all the details. Now, I am not bothering myself very much with details at the present moment; I am dealing with the general scheme and I have no hesitation in saying that the general scheme is perfectly feasible. As a Canadian I want to see it adopted, and in the interests of the St. Lawrence channel I hope some day to see a general scheme from lake Ontario to Montreal adopted. (Hear, hear and applause).

Mr. H. G. Kelley, C.E.: Mr. Chairman and gentlemen, my connection with this is purely on technical grounds. Though I am Chief Engineer of the Grand Trunk, I appear here in my strictly personal capacity. My entire life has been devoted to engineering work. I have worked in some of the largest rivers in this country. In this connection, and in the development of this project, I went over the entire field with Mr. Rickey from lock 20 to lock 21, over Sheek island up past Croil island, down the Long Sault, and down to Cornwall. I have examined not only the map upon the wall but all of Mr. Rickey's profiles, measurements, and the methods of his calculations. I have not attempted to go through the voluminous calculations incident to a study of that character. It would take weeks. It has already been calculated by several specialists, men of international reputation. I have looked at Mr. Rickey's methods of computation, his methods of study, and I must say he has used the most advanced and the most scientific methods that are familiar to us, or known to us to-day. These calculations being checked and borne out by the eminent engineers mentioned, would convince me that his results as shown to me are correct. These results remove from my mind any doubt as to the perfect feasibility of this plan. The locations selected for the dams are solid ledge rock. Their stability is unquestionable. It is a mere question of design of the dam; and when a corporation will put millions into a project, they will certainly not save thousands in the design of a dam of that character. I understand Mr. Kennedy to have said that no man can tell what ice will do in a river like the St. Lawrence, That is true; but under no condition established by these dams can the ice gorges be worse than they have been in the St. Lawrence at that point. They will in fact be better. To establish the dam further down the stream, as was suggested, would place it in a very bad bottom. The history of the Cornwall bridge, known to every gentleman in this room, is sufficient answer to the judgment displayed by the engineers of this Company in moving up-stream to where they got solid rock. Some questions that have been brought up are, "the results down-stream from the breaking of a dam." If the entire water impounded back of those dams were suddenly transferred to the

reach of the river between the foot of the dam and Cornwall, it would raise the water a trifle over twelve feet. If that water were suddenly transferred to the stretch from the foot of the dam to the foot of lake St. Francis, it would raise the water about six and three-eighths inches; and if it were continued from that point to the foot of lake St. Louis, it would raise the water about 3¾ inches. I certainly can see no harm due to the breaking of the proposed dam. But such an assumption is absurd; it could not happen; no great dam of that kind would go out all at once. If it went out piecemeal the results of those rises would be distributed piecemeal down the river. As I say, I went into the matter without prejudice. Had I found anything in Mr. Rickey's general plans that I could have condemned, I would have said so. Had I found anything that would have been detrimental to the interests of Montreal I never would have been here. I can see from this only the saving of energy of over half a million horse-power per year, to the development of industries on both sides of the St. Lawrence river, and for many miles in either direction. I therefore came before this Commission to say that as an engineer I believe the project is entirely feasible, that it is entirely safe, and that any small objections that can be raised as to the resulting currents can easily be taken care of by the engineers. (Hear, hear, and applause).

MR. MCCARTHY: About the ice conditions, I suppose there are facilities in existence to-day which will break up ice?

MR. KELLEY: Oh yes.

MR. MCCARTHY: Could they be utilized in that channel, assuming the dams were there?

MR. KELLEY: Yes, safely, where they could not be used in the swift currents of to-day.

SENATOR DERBYSHIRE: Mr. Chairman, and gentlemen of the Commission, the one thing we need in the town of Brockville, and have needed for years, is cheap power. We have been looking in every direction for this power, and after hearing our engineers' report, and after having had a large number of our citizens visit this locality, we have come to the conclusion that our chief power must come from that locality, and that if we can get this power developed it will be of vast interest to us in the town of Brockville. It will cheapen the cost of power in that district, and put us in the position to hold the factories we have at the present time, and to get other large factories and concerns there, on account of the situation. As you know, sir, our town occupies the most beautiful situation on the continent to-day; at the foot of the Thousand islands, on the ever-famous St. Lawrence, the most beautiful place in all the world for scenery and for development. Our citizens are all anxious that we should develop, and we can only do so by having cheaper power so as to retain and increase the development of our factories. We

want this power on account of its simplicity, on account of its cleanness, on account of its ease of handling in all our factories, small as well as large, and I am sure that it will be for the advantage not only of our country but for the United States as well, that this power should be developed there. I cannot see why a little technical objection should be raised by other parts of the country that have cheap power to-day, lest we would go in competition with them in our manufactures and in our development, and with the resources that we can so easily utilize in our locality. I feel that the Commission would be justified in recommending this scheme as far as they possibly can, because it has been shown by the engineers that it is feasible, and there is no reason in the world why we should not have cheap power in Brockville as long as this is so easily obtained. We have the capital at the back of this Company that is ready to develop it, so that we feel safe in recommending this scheme to the Commission and to the country. (Applause).

Mr. G. G. Foster, K.C.: Mr. Chairman and gentlemen. Before the case is closed before this Commission I desire on behalf of the St. Lawrence Power Company to say a word to the Commission and one to the gentlemen interested in this project. When I was first approached in connection with this matter, and retained Mr. McCarthy to act with me, we were approached as lawyers and as citizens of Canada and asked to join hands in the development of something that was—so far as Canada is concerned—useless at that time. Because we made that association we neither lost nor sank our interest in things that were Canadian; and I want to tell this Commission, and those gentlemen who are opposing us to-day, that we still retain that same interest. We are not prepared, any one of us—or the men associated with us—to remain for one single moment connected with the St. Lawrence Power Company, after any engineer, or any man who is in a position to do it, shows us that we are going to do one of the many things that have been charged against this proposition. (Hear, hear). We have been assured, not by ordinary, but by the most eminent engineers in the United States and Canada—and we have had the best expert advice that money would enable us to get—that none of the difficulties exist that are said to threaten this project, and it is because we believe that this petition should be granted that we appear before your Commission to urge it.

We are one with the gentlemen here representing the shipping interests, in not wanting the shipping interest of Canada or the St. Lawrence river injured; but we do not believe that the development of Canada should be retarded in order that a few tourist tickets may be sold from some point in America to Montreal. We do not believe that this one single rapid, among the many rapids there are in the river, should remain as it is to-day in order that the little business that is represented

there might be transacted. So far as the great question of the shipping interests of Canada is concerned, we believe we are not going to injure them. If we did not believe that, we would not be here. I say, Mr. Chairman, we believe in the justice of the case that we put before you. We believe that this power can be developed so as to be a blessing not only to the places that have been represented here to-day, not only to the parts that have been mentioned, but that it can be a blessing to the great city of Montreal. There we have a population increasing by leaps and bounds, with no power except the limited power that is developed there to-day, and the power that is brought from Shawinigan, which is in the hands of a monopoly which is grinding down the people of that great city—(Hear, hear). A monopoly that can best be met by such a development as we propose.

Mr. Beck asks what I am going to do. We are going to have opposition to them.

HON. MR. BECK: How long?

MR. FOSTER: I do not say how long, but we will take good care that the new contract which is made with the city of Montreal, is not tied up as are some of those of the province of Ontario. I say that Montreal is not here as a unit to oppose this plan; Montreal is not a unit against this proposition. A few men interested in the Light, Heat & Power Company, a few men, including lawyers and others, who are interested in the Street Railway Company, a few men that are interested in some of the shipping companies, think that it is going to injure them; but the great population of the city of Montreal, I believe, is in favour of this proposition. I believe that it will benefit Montreal, and because as a citizen of Montreal so I believe it, I give it as an additional reason to urge you to grant this petition. (Hear, hear, and applause.)

MR. MCCARTHY: Mr. Chairman, I do not propose to try your patience any longer. I desire simply to say that I hand you a list of the gentlemen who have come from Brockville, Cornwall, and Prescott to be present and advance their views, representing the locality from which they come.

CHAIRMAN GIBBONS: Then do I understand that there are no other gentlemen to address the meeting in favour of the proposition?

MR. H. A. CALVIN (Kingston): I understand the speakers on that side are finished?

CHAIRMAN GIBBONS: Yes.

MR. CALVIN: At this stage I would like to say that at the last hearing of this scheme the Calvin Company, through myself, objected to the scheme because it would shut our rafts out of the river. I now want to say that the Long Sault Development Company have agreed to bear the loss incidental to our barging timber through the canal, and so we withdraw the objection. (Hear, hear, and applause).

CHAIRMAN GIBBONS: Mr. Beck, do you wish to address us?

HON. ADAM BECK: The Government has a representative here.

MR. HILLIARD: You prefer going on, Mr. Chairman?

CHAIRMAN GIBBONS: We will go on till six o'clock, or half past six.

MR. HILLIARD: Mr. Chairman and gentlemen of the Waterways Commission, I was very glad to hear the representative of the promoters of this scheme say that they were ready to pay for the power that would be developed there; that they recognized that there was no ownership in the water. I wish to call the Commission's attention to the fact, that in reference to Canada, the St. Lawrence Power Company have taken the very opposite course to what the Long Sault Development Company did in the United States. I fancy that if the Long Sault Development Company had proffered their Bill to Congress in the first instance they would have been sent back, and their efforts would not have been recognized until they had acquired, by legislation or otherwise, the rights that are recognized to exist in the state of New York. And so they wisely attended upon the Senate and Legislative Assembly of the state of New York, and obtained the requisite legislation to give to them the rights and powers possessed by the state of New York, and that was embodied in the Act of the state of New York; which is now known as Chapter 355.* By looking over that Act you will find that when Congress—the national parliament which has the legislative jurisdiction over International waters, or rather, I should say, administrative power—would grant them such and such authority, then the representative body of the state of New York was to convey to them the ownership in the bed of the rivers, and the ownership, so to speak, in the proprietary rights that exist in the state of New York in the waters flowing over their properties. Now, we stand upon the same footing exactly. The highest court in the British Dominions decided in the year 1898—and that decision is reported in the English Reports of Appeal Cases 1898 at page 700—in a submission by the Dominion Government, representing on the one part the Dominion and on the other part the three provinces of Ontario, Quebec and Nova Scotia—.

CHAIRMAN GIBBONS: I do not want to shut off any discussion, but you surely do not expect this Commission to settle the question of jurisdiction. I am quite familiar with the decision as to proprietary rights; but that is not the point. It is necessary, in dealing with International waters, to have an International Commission to deal with the International questions. We are merely an advisory Board. We cannot take away your rights if you have them, nor are we a court to establish anybody's rights if they exist; so I think this is hardly the place to thresh that out.

*See Appendix I, page 39.

MR. HILLIARD: It seems to me that it is very foolish, from a commercial point of view, to ask those rights from a Government that has not those rights to give.

CHAIRMAN GIBBONS: That is a matter for this Company. They may not get any rights; but all the Commission have to do is to see whether there is any reason, from an International standpoint, why those rights should not be given.

MR. HILLIARD: One of the reasons is that the Government of Canada have not the power to grant those rights.

CHAIRMAN GIBBONS: Well, they will have to take care of that.

MR. MCCARTHY: Are you going to get this Commission to hold that? (Laughter.)

MR. HILLIARD: We say this that the proceedings in the United States were proper; they were right; they went to the Government that had the right to give those rights. Now, it is, so to speak, going "cart before the horse" in Canada. It may be they will never get the rights from the Ontario Government; it may be they will; but what we say, speaking on behalf of the Government, is that any power that is developed from the water of the river St. Lawrence belongs as the proprietary rights of the province of Ontario, as was decided in that case. We furthermore say that the ownership in the soil, in the bed of the river, to the International boundary, the title is in the province of Ontario, that was also decided in that case; and therefore until these questions are settled, it is absolutely useless to go on with this proceeding. Even in that case it was assumed that the Parliament of Canada, might, so to speak—

CHAIRMAN GIBBONS: I must rule you out of order in that discussion. We cannot settle these questions of jurisdiction. There may be a question between the Dominion and the Province as to who has these rights. There is a place to settle that; it is not in the Queen's hotel but in a court, at Ottawa or somewhere else.

MR. HILLIARD: We simply wish to protest at this time, and as long as it is recorded we have discharged our duty to the Province, and have not allowed this Commission to go on and make reports while we sit back.

CHAIRMAN GIBBONS: It is quite right that you should make the protest, but an argument would do no good.

MR. JAMES WHITE: I appear here on behalf of the Commission of Conservation. At the last meeting of the Commission a memorandum was prepared and I was instructed to deliver it to this Commission at its meeting here to-day.

Ottawa, February 7, 1910

To the members of the International Waterways Commission:

Gentlemen:

I have the honour to refer to the communication of your Secretary, under date of Jan. 11, 1910, and to communicate herewith the views of the Executive Committee of the Commission of Conservation in regard to the application of the St. Lawrence Power Company now before you.

This subject has been considered by the Executive Committee, consisting of Hon. Senator Edwards, Mr. E. B. Osler, M.P., Dr. Henry S. Béland, M.P., Mr. F. D. Monk, M.P., Dr. J. W. Robertson, Hon. Mr. Haszard, Premier of Prince Edward Island, Mr. J. F. Mackay and myself. The views herein expressed represent the unanimous opinion of the Committee.

The proceeding is understood to relate to the application of the St. Lawrence Power Company, now pending before the Dominion Government, for leave to construct dams across the St. Lawrence river at and near the Long Sault rapids. As part of the proposed works, it is intended to erect an extensive power development plant upon Barnhart island (an American island) and upon the United States mainland and a much smaller plant on the Canadian mainland. Examination of these proposals discloses a variety of important considerations.

(1) It is quite possible that serious damage would result from the construction of the works. Engineers have, it is true, given an opinion that there is no probability of such damage. On the other hand, the opinion of the residents along the shore, and the most experienced navigators and observers is apparently almost unanimous in holding that the probability of serious damage is very strong. With all respect to the engineers who have given their opinions, it is submitted that the question is not an engineering problem, and that no data exist for the formation of a reliable engineering opinion. No engineer can tell where or how ice will be formed, when in our rigorous climate the flow of a mighty river is interfered with. It is a fact that slight interference has in former years caused great damage from floods and ice jams. The possible total stoppage of the flow of the river as a consequence of the works contemplated is a contingency which cannot be said to be impossible or remote. Such a stoppage would cause enormous damage to private property and would imperil the Cornwall canal, which is an integral and essential part of the all-Canadian water route from lake Superior to the Sea.

It does not appear necessary to express an opinion as to whether the weight of evidence or probability is in favour of the view expressed by the engineers, or that expressed by the residents of the locality who have intimate knowledge of the history of the river for many years past.

The fact that there is any—even the slightest—difference of opinion is a sufficient reason for condemning the proposal. No risk whatever should be incurred in a matter of such vital national importance.

(2) The proposed diversion of water by the dam between the Long Sault island and Barnhart island, would take from the main navigable channel between Barnhart island and the U.S. mainland about 50 per cent. of its water. The effect of such a diversion of water from the navigable channel is impossible to estimate. It can, however, be stated with certainty, that the navigability of the channel would not be improved by such diversion.

(3) The construction of the dams in question will result in compelling navigation (other than by the Cornwall canal) to follow a new route known as the South Sault channel. Experienced navigators are of the opinion that this route will be much inferior to that now followed.

(4) The time will undoubtedly arrive in the history of Canada when deeper navigation upon the St. Lawrence will require to be provided for by the Canadian Government. Should the works proposed by the St. Lawrence Power Company be constructed, the Government would no longer have a free hand in undertaking such an enterprise.

The vested rights of the Company would require to be considered. Should the engineering plans adopted for improving and deepening navigation, interfere with or damage the works of the Company, which is reasonably certain to be the case, then the Government would be under the necessity of expropriating such works and paying an enormous sum by way of damages. Moreover, it is not clear that such expropriation could be had on any terms. The International character of the works might prove an insuperable bar, in which case the Government would be without remedy, and the improvement of navigation could not be effected.

(5) The proposed scheme of the St. Lawrence Power Company contemplates making use of the Canadian side of the river simply as a convenient landing place for a dam. A very slight examination of the plans of the Company is sufficient to make it clear that only a small portion of the contemplated expenditure will take place in Canada and only a very small proportion of the total power developed will be developed in Canada.

(6) Looking at the whole scheme, it does not appear that any serious attempt can be made to show that Canadian requirements or Canadian interests are an appreciable factor in the plans of the Company. The plans contemplate the absolute monopolization of the whole power available from the Rapids with a minimum consideration of Canadian interests.

(7) No market exists at the present time upon the Canadian side for the power proposed to be developed, or any appreciable portion

thereof. When any large quantity of power is required in the territory tributary to the proposed works it can be otherwise provided. There is within the radius of economic transmission, abundant power available for development in purely Canadian territory without interfering with the St. Lawrence river in any way.

(8) Should the time come when further power is demanded by Canadian interests and the placing of a dam across the St. Lawrence river is determined upon, one-half of the power to be generated thereby will belong of right to Canada and should be permanently retained for Canadian use without any exception or qualification.

(9) The suggestion that power can be generated on the American side, or generated on the Canadian side and exported to the United States, and that thereafter, when it is required in Canada, the Company can be ordered to deprive its United States customers of the power and deliver it in Canada is regarded as being entirely illusory. If the power is used in the United States, industries will be built up and vested interests created thereby which it will be impossible to ignore. The attempt to enforce an order for the delivery of power on the Canadian side after it had for years been exported or used in the United States would lead to serious difficulties. The case is not the same as if the Company and its works were wholly within Canada. If the Company desired to avoid or resist such an order, no means would exist of enforcing it without resorting to steps which would be a sure road to International complications.

(10) Although not at present required for actual use, the power possibilities of the St. Lawrence at the Long Sault are very great and the time will undoubtedly come when they will be of enormous value. The present proposition contemplates giving away this valuable asset, without any substantial consideration, to a foreign company for its private financial advantage.

(11) The obvious conclusion from the facts above recited, seems to be that the plain duty of Canada is to maintain her rights of ownership and jurisdiction absolutely unimpaired and untrammelled.

There are other considerations to be taken into account besides those of an exclusively material character.

Canada is becoming increasingly known throughout the world as a land of great natural beauty. Its mountain, woodland and river scenery are unrivalled. Among all the beauty spots of the Dominion, perhaps the Long Sault and the romantic and exciting passage over its rapids are the most widely known and the most universally admired. Situated upon the greatest system of fresh-water navigation in the world, midway between the Great lakes and tide-water, the Long Sault is an important feature in the great panorama, which for generations has caused the St. Lawrence to be known throughout the world as the embodiment of the highest type of landscape beauty. Only the most ur-

gent and unavoidable necessity could furnish justification for diminishing in any degree the natural attractions of this great river. The destruction of its finest feature without even the semblance of present necessity would seem to be wholly indefensible.

For the above reasons the Executive of the Commission of Conservation desires to place on record its unqualified opposition to the proposition which is before you.

I have the honour to be,

Gentlemen,

(Signed) CLIFFORD SIFTON
Chairman

CHAIRMAN GIBBONS: It is a very easy thing to give judgment without the facts.

MR. HUTCHESON: May I ask if the Conservation Commission took the evidence of witnesses pro and con before producing that?

MR. WATSON: Will the meeting now adjourn till after dinner or till to-morrow morning?

CHAIRMAN GIBBONS: We want to suit your convenience. There are a great many gentlemen here, from a good distance. Mr. Lafleur and Mr. Smith, I think we ought to consult you, and Mr. Meredith, would you rather meet this evening?

MR. R. C. SMITH: I do not think I ought to mention my own convenience at all. I should be pleased to stay over if necessary.

CHAIRMAN GIBBONS: It seems to me a matter that you have to take time to thresh out. We certainly want to get all the information we can from all sources. All we are seeking is light, and I certainly do not want the matter hurried.

HON. MR. BECK: Mr. Chairman and gentlemen of the Commission; considerable stress has been laid upon the fact of the power requirements on the Canadian side in the vicinity of this development. Mr. McCarthy has gone so far afield as to say that the west is robbing the east.

MR. MCCARTHY: Oh, no!

HON. MR. BECK: I beg your pardon, those are your words.

MR. MCCARTHY: I do not think so.

HON. MR. BECK: Well, I know it.

MR. MCCARTHY: I am sure of it. (Laughter).

HON. MR. BECK: Because the great development that is taking place in the west is robbing the east. It may surprise you to know that the development in the east has received considerable thought on the part of the Government and the Hydro-Electric Power Commission of Ontario. The municipalities lying between Cornwall and Brockville, Kingston, Prescott, and so on, down to Port Hope, have

made formal application to the Commission for the supply of power. They have been offered a supply of power adequate to meet their requirements at a price somewhat lower than that suggested for the power that is to be sold by this Company. (Hear, hear). Sir Wilfrid Laurier, I am informed on good authority, has said that the cry for power in this district must be considered, and that is probably one of the reasons why a development of this nature should take place. Now, I take exception to the statement of the gentlemen from Cornwall and to Mr. McCarthy's, that the east has not been considered. I have a memorandum here of the different municipalities that have applied for power to the Commission; they are: Napanee, Durham, Cobourg, Oshawa, Port Hope, Bowmanville, Deseronto, Belleville, Kingston, Prescott, Morrisburg, Picton, Cornwall, Brockville. These have applied for power to the Commission; and to confirm my statements, we have submitted prices to these different municipalities based upon a twelve-dollar power basis, not fifteen-dollar power. (Applause). And for the information of the gentlemen, and the Commission, I may say that fifteen-dollar power is of no use whatever to the municipalities other than Cornwall; the cost is too high. We are buying power at Niagara Falls at nine dollars, and if we are assured of nine-dollar power we will be able, as a Commission, and as a Government, to transmit that power to all the municipalities, meeting the development from Niagara Falls to Toronto midway, but not fifteen-dollar power. However, the contention that the west is being looked after and not the east, is not justified. Our work is not confined to the west, or the east, or the north, or the south. It covers the whole province of Ontario. Port Arthur is at the present time under contract with the Hydro-Electric Power Commission. Ottawa is receiving some benefit because of the work and the undertaking on the part of the Commission; and the eastern district has been fully considered, and we contemplate completing a transmission line that will reach from Brockville in the east to Windsor in the west. Therefore, your anxiety as a Commission must not be so very strenuous and severe from the feeling that these municipalities have been neglected and that their requirements have not been met. They have all had the price of power submitted, twelve-dollar power; fifteen-dollar power is not of sufficient importance to consider from that standpoint at all. As to rate regulation, we have not found in the province of Ontario that rate regulation solves the question. We have rate-regulation clauses in the contracts existing between those companies at Niagara Falls and the province of Ontario, but they have been ineffective; we get no results whatever.

Chairman Gibbons: I do not think the regulations that this Commission will suggest can be compared with your Ontario regulations.

If this Commission does suggest regulations, I think the Government will have sense enough to provide properly for the regulation of rates. In your case your regulations did not amount to anything.

Hon. Mr. Beck: That is the absolute conclusion of the Hydro-Electric Commission and that must be carried out in whatever arrangements are made. We found ourselves at a disadvantage, and do now, at Niagara Falls. Although we are supposed to have an equal division of the power, two-thirds of the power is being shipped to the United States in addition to the full development in the United States, and we hope we will not have a repetition of that.

Mr. McCarthy: Might I ask Hon. Mr. Beck when and how he offered power for Brockville?

Hon. Mr. Beck: I did not say Brockville. It is not on my list. I say there is a—

Mr. McCarthy: Whether it is on your list or not, you read Brockville.

Mr. Hutcheson: As town solicitor for Brockville I wrote two years ago for power to the Hydro-Electric Commission, and to this day I have not received a reply to my letter.

Chairman Gibbons: That is a controversy between you and the Hydro-Electric Commission, and is not of interest here.

Meeting adjourned at 6 o'clock p.m., until to-morrow, Wednesday, February 9, 1910 at 10 o.clock a.m.

Toronto, Wednesday, Feb. 9, 1910

The Commission met in the Queen's hotel at 10 o'clock, with the same Commissioners and other persons present as at the opening session.

In opening the meeting, Chairman Gibbons said:

I think I ought to mention that in the Bill that was introduced into Congress, providing for the construction of this dam, a provision was inserted, similar to that in other Acts of the United States. This Bill was subject to a general Act to regulate dams across navigable rivers. The provisions are of the most stringent kind, for authority is given to the Secretary of War to deal with interests of navigation at all times. That is to say, all privileges granted are subject to navigation interests, and can be taken away at any time—I think I am not stating the law too strongly—and the Act of Congress brought in has also this provision, that the consent of the proper authorities on behalf of the Dominion Government is to be given to any work that is to be carried on. I certainly think that if anything is done, whatever decision is arrived at here, that it may be taken for granted that the Canadian authorities will not be less astute in protecting the interests of Canada than are the

Americans in the provisions which they made in these special Acts. I do not know who is now ready to proceed.

MR. KING: I may have something to say specially in behalf of the Dominion Marine Association, but as the Richelieu & Ontario interests are specially represented, as Mr. Calvin has made arrangements which are satisfactory to him, and as several freighters have already expressed their views to a slight extent, there are other interests I would like to be heard, and would therefore ask Mr. A. A. Wright, of the Chicago Steam Navigation Company, to state his views.

MR. A. A. WRIGHT: Mr. Chairman, it is with a good deal of diffidence I come before you at this meeting, for the simple reason that I sat here yesterday very patiently, trying to the best of my ability to find out why we are here, and it is not quite clear to me yet. So far as I can learn from Mr. McCarthy's statements, and the so-called explanation by the engineer, Mr. Rickey, I have yet to see anything before this meeting which would justify any opinion being expressed by any one in the room, whether on the Commission or not.

In the first place I would like to make clear to you, Mr. Chairman, the reason why the apparently generous offer that was made by the vested interests was not taken advantage of. I was present with other men representing those interests, when that proposition was discussed, and we decided, rightly or wrongly, that it was utterly impracticable, and I will give you the reason so that you can see whether we are wrong in our decision or not. As we understood it, the proposition put up to us was to send engineers to look over the ground and see if it were feasible to put a dam and power-plant across the St. Lawrence at that location without interfering with navigation; and we were asked to select engineers to express an opinion on that point. Now, the first difficulty that confronted us was, "What would we ask an engineer to do?" The only thing that had been presented to us for our consideration was a sketch, which might as well have been made on the sand with a stick, simply showing that they proposed to put a dam here and a dam there, and a power-plant here and a power-plant there; but there was no statement showing us comparatively what the shore-line and the heights of water would be as to the shore on either side, respectively. They did not tell us what the heights of the dams were; what effect it would have on the currents when the discharges were going on over one or all plants; how it would affect the outlet of the Cornwall canal; whether the discharge was running strong at the north power-plant, or at the south power-plant, or at the middle power-plant, as the case may be. We simply were confronted with this, viz., that we had to have a choice of sending an engineer to see if he could evolve a plan which he thought would be practicable, which we could criticize, and if we pointed out that his plan was impracticable, and came before the Commission, we

would be told; "Oh, that is not the plan that is being adopted; your arguments do not affect this plan." It would be simply putting us in that absurd position, as we thought, taking for granted that engineers are competent to say whether those power-plants will interfere with navigation or not. I am quite willing to admit that engineers can sometimes construct bridges that do not fall down, and dams that are not carried away; but sometimes they fail. It is not only in ancient history that we find engineers making bridges that collapse or dams that are carried away; it is of comparatively recent occurrence, and sometimes entailing serious loss of life.

We have heard a good deal about broad views, and about looking at this matter in a narrow light. All the interests that were listened to yesterday, as far as I heard, came from points between Brockville and Cornwall, or in some cases as far as Montreal. Now, if you look at a map of Canada and the United States, it is a long way from Montreal to the Pacific ocean. The St. Lawrence waterway is without question the great regulator of freight rates from the west to the Atlantic ocean. No man can say what the requirements along the St. Lawrence waterway may be fifty years from to-day. To show you that, I do not need to go back more than ten years, when none of those freighters who have been heard from here were doing business on the St. Lawrence, and by the way, the consent which those freighters made to this improvement going on was only conditional—"if" so-and-so were done, and "if" the things they were told about were done, then they thought it would be a good plan. None of those gentlemen were interested on the St. Lawrence ten years ago. But you, gentlemen, as a Commission, are virtually trustees for future generations, and your recommendations to the respective Governments will be binding probably for all time. Because, while the United States Congress and the Dominion Government may have provisions inserted in an Act by which they could blow those works out of there if necessary, we all know that lawyers can have things drag along. This has been instanced no later than within the last few years with the franchise granted at the American Soo canal, which held up the United States Government, and has delayed construction on the lock by the United States for two years, and has only very recently been put out of the way, so that the United States Government could proceed with the construction of a new lock at the Soo canal. We have also this that should be perfectly clear, that when we want some one to navigate steamers we do not go to the most competent engineers in the world, or even the most renowned; we take men who are trained in navigating steamers. Now, the only men who are competent to express an opinion as to the effect of these works are pilots who earn their living piloting vessels in the currents of the St. Lawrence river; and I have yet to hear of one of those men who has stated that he

believes that these dams or these power-plants will not be injurious to navigation.

In his so-called explanation of the scheme yesterday, Mr. Rickey failed to tell us even the height of the dam which would be constructed. He did not even show on the plan the full length of the Cornwall canal. Personally, I do not know yet exactly how far it is from the head of the Cornwall canal to the foot of it—from anything which was stated here. I believe it is something in the neighbourhood of eleven miles. We do not know what the fall will be from the outside of these power-plants to the foot of the Cornwall canal. We do not know what the speed of the current will be; what the speed will be if they are developing 100,000 horse-power at one of their plants, and what it will be if they are developing 300,000, or the whole 500,000; what the effect will be on a boat if it came along with the north plant shut down, with no discharge current, or with the south plant shut down. All these are things, gentlemen, which I think should have been furnished to the public, if this meeting is to be asked to express either approval or disapproval of this scheme. Now, so far as I can see, there seemed to be two sets of plans. There seemed to be this rough, crude sketch which is given to the rest of us, and another set of plans which seems to be before the Commission, on which apparently we are asked to express an opinion without having seen them. Now, I think that is manifestly unfair. It puts us in this position, that we must leave the whole question to the decision of the honourable Commission without being able intelligently to give you any assistance by the expression of opinion from men who are concerned in the interests of navigation.

Now, so far as the letters are concerned which were read here yesterday, I must say that they took me by surprise. Those letters seem to have been obtained between the annual meeting of the Dominion Marine Association, held at Ottawa, on January 26th and 27th, when, amongst others, Mr. King and myself were appointed to appear on this deputation, and see what we could learn about the scheme, and see if we could get any information on which to base an opinion. Now, I have too much respect for the opinions of these gentlemen, if they expressed them honestly—that is, finally said that the plans were all right—to believe that they could have expressed them on the information which I have received; but why should they have received some different information, or different plans from the rest of the vessel interests of Canada? That is what I cannot understand.

All that I have to say to the Commission further, is that I am unalterably opposed to any works put in the St. Lawrence river in the hands of private interests whose only object is the earning of dividends. They can have no direct interest in navigation. It is all very well to say that they will bring industries into that small district in the vicinity of the rapids;

but that is a very small thing against the whole interests of the West. Now then, just take for granted that permission is given to put those works there, and they are found to be prejudicial to navigation; that inside the next fifty years it is found necessary, in order to control freight rates for the western citizens of both the United States and Canada, to increase the facilities between lake Ontario and the Atlantic ocean for the passage of vessels, and we are met by a vested interest at the Long Sault. What could be the result? We will hear the story of the widow and orphan whose funds are invested there in good faith, that cannot be interfered with; and navigation interests will simply have to put up with the results. Mr. Holgate expressed the opinion yesterday, that possibly at some future date all the rapids on the St. Lawrence might be covered with dams, and the stretches in the river between those dams used for the passage of ships, instead of canals. Now, as a man interested in the vessel business I would say that would be an ideal scheme. But, supposing that it is brought about, and that this scheme is in operation to flood out all the rapids and get the necessary dead water between the dams, it might tend to lower the head of this particular dam; and then we would be met with the objection, "Oh, you are taking away our franchise; you are reducing the power which we have spent money to develop." There are a hundred and one questions like that which might come up, and which we have had no opportunity of considering, because, as far as any information which has been given to me at any of these meetings is concerned, we know absolutely nothing about the height of the banks along the St. Lawrence river between those stretches, or what the proposal in any shape or form is, except the crude sketch which was given here yesterday. That, as I have said, does not cover the whole length of the Cornwall canal even; it does not tell us the height of the dam, or anything in connection with it. I will not take any more of your time, gentlemen, because I think I have said enough to show you that we are in absolutely no position to give any intelligent opinion on the merits of this scheme. I thank you, gentlemen.

Mr. John Kennedy, C.E.: Mr. Chairman and gentlemen, I represent the Harbour Commissioners of Montreal on this question; but I am not here on their behalf to oppose the damming of the St. Lawrence as a general proposition. I assume that that can be done wisely and safely in some way; but the plans placed before us do not give sufficient information to show whether the proposed dams are good and safe or not, and therefore only the general features of the scheme can be dealt with at present. The Harbour Commissioners of Montreal, in viewing the project as it will affect the navigation of this part of the St. Lawrence, and therefore the navigation interests of the whole St. Lawrence route, which is the great water transportation route of the Dominion, look upon the scheme as having placed public and private interests in in-

verted order. I understand, Mr. Chairman, that your Commission holds that the navigation interests of the St. Lawrence are paramount to other interests on the river. The Montreal Harbour Commissioners are strongly of the same opinion, and they therefore hold, that any proposition dealing with the St. Lawrence in so drastic a manner as the present, should be designed primarily as an improvement to navigation and only secondarily for the development of water-power. The present scheme is really conceived as a water-power proposition with a navigation attachment, which is entirely wrong. The Harbour Commissioners, therefore, in holding that the project should be fundamentally dealt with as a navigation question, hold that the damming of the St. Lawrence at the Long Sault should be so done as to form part of a general scheme for the improvement of the navigation of the whole St. Lawrence on a great scale.

It is proposed, and no doubt the proposition will be carried out, that the Welland canal be enlarged so as to bring lake vessels down through lake Ontario and the St. Lawrence to Prescott; but the navigation needs of the country are already so great, and are increasing so rapidly that obviously, and at no distant date, the capabilities of the St. Lawrence will have to be increased, and that on a great scale. That object will in all probability be attained not by making lateral canals but by canalizing the river as is now being done in nearly all large schemes for the improvement of river navigation. The improvement of the Ohio, for instance, is a work of that character, and it is being carried out by building dams and locks with navigable stretches between. That project involves the making of some fourteen or fifteen dams at an estimated cost of $93,000,000. A considerable part of the scheme is already carried out. The canalizing of the St. Lawrence presents fewer difficulties and offers far greater advantages, The Long Sault will obviously form one of the most important sections of the great work, and the present proposition should, therefore, be considered in that light. Looked at in this way it will at once be seen that the damming of the Long Sault should be a Government work, as are all the works for the improvement of navigation on any scale, whether large or small, throughout the whole Dominion; and this policy has been followed from the building of the little ancient locks and canals for passing of row boats, down to the great modern lock at Sault Ste. Marie. The first Welland canal, built as it was by a company, forms a notable exception; but its working proved so unsatisfactory to owners, navigation interests and to the public interests that it had to be taken over by the Government. History taught a lesson, the value of which has not been lost, and since its time no navigation highway throughout the whole country has been placed under private control. The same sound and firmly established policy should surely be followed in dealing with the greatest waterway

of the northern part of the continent, if not the greatest navigation highway of the whole continent. Neither dam, gate nor lock under private control should be allowed to bar the International highway between the lake ports in the heart of the continent and the sea ports of the world.

The United States to the south have rights and interests equal to those of Canada on the north, and it would obviously give occasion for International complications if the separate rights and interests of the two nations were in any way placed in the hands of any private company. I do not at all reflect on the excellent gentlemen who are at present promoting the Company; but we know perfectly well that they may sell out next week, or that the whole thing may pass into the hands of a merger of such great proportions as to be difficult to control. We know by watching the court records how exceedingly difficult it is to deal with those tremendous trusts, even with all the power of the American nation as prosecutor, and this project may be in such condition at any moment. The Harbour Commissioners, therefore, hold that any such project as the present should be a Government one and that if carried out it should be in such way as to best serve the interests of navigation. With this view they hold that the project should have provided a navigation channel on the International Boundary line, say a thousand feet in width, which, to carry the contemplated portion of the St. Lawrence, should be quite thirty feet in depth. It should be so made as to be an International navigation channel, having at least one lock on the Canadian side of the boundary line, and not merely a single lock away to the south and out of the Canadian line of travel. Of course there is no objection to a lock on the American side; it would be all the better for navigation interests if there were, because I assume that both nations could use either lock as is done at Sault Ste. Marie. But we hold that there should be one also on the Canadian side, for the same reasons that the Canadian Government felt impelled to build a lock on the Canadian side of the Soo, when there were locks already on the American side, which were perfectly free to us, and where our boats were treated on a perfect equality with those of American owners. The Canadian Government nevertheless felt it necessary to build a lock on its own territory, and to dredge approaches at great cost and the same policy should apply, surely, to the St. Lawrence at the Long Sault.

As regards the water-power. The Harbour Commissioners of Montreal are deeply interested in that also, because power developed at the Long Sault will benefit all the surrounding country, Montreal to the east, and other towns along the St. Lawrence to the west. It will promote industries which will benefit navigation interests and increase the trade of the whole country. The Commissioners, however, hold that the energy to be developed from half the water of the St.

Lawrence should be developed on the Canadian side, and wholly on the Canadian side; that it is entirely unsafe and unwise to allow that half to be developed outside of the country, and therefore out of the control of its Government. The province of Ontario has adopted the policy of putting large blocks of its water-power under a Hydro-Electric Commission. Quebec is doing the same. The Dominion Government has established a Commission for the Conservation of Resources. The power resources of the St. Lawrence river are tremendous, and ought to be so treated as to contribute in the very best and surest manner to the prosperity of the country. We hold that it cannot be safely done by allowing the Canadian share of that power to be developed on the American side.

The plan, so far as it can be understood, provides that a large channel be made on the north side of Barnhart island, and certain power-houses built upon that; but we are told that only one-fifth of the power is intended to be developed on Canadian soil. This feature so far as can be judged, could without any great difficulty be reversed and the power-houses put on Canadian soil on the same channel; and it should be done. Mr. Rickey, the Company's engineer, has been understood to have said that he cannot find sufficient room to place them on the Canadian side between the channel and the Cornwall canal. I think we have Canadian engineers who could solve the problem of putting the power-houses on our own side of the channel without any difficulty at all. (Hear, hear, and applause). There is no difficulty about that. The Harbour Commissioners, therefore, protest against the development of Canadian power on the American side, and they hold that the works necessary for the development of power so far as they are part of the works necessary for the improvement of navigation should be built and owned by the Government; and that they should include a navigable channel and lock on the Canadian side under similar ownership and control. I do not pretend to say how the International questions which arise can best be dealt with, but it is safe to assume that a working arrangement can easily be arrived at between the two friendly Governments; and the uniform policy of the Canadian Government in keeping all such works in its own hands would facilitate the making of such an arrangement.

The development of water-power on so great a scale is of course not intended to be carried out by the promoters as a work of benevolence. We are told that the estimated cost is some $24,000,000. Suppose prices rose and difficulties occurred, and it came to $35,000,000, it is only $50 a horse-power. Ten per cent. on that cost would pay interest and maintenance charges and the insignificant charge for water set forth in the charters; and would be only $5.00 per horse-power per annum for the water, at the dam. The capital cost of turbines and power-houses in a case like the present, would be small and their annual cost for in-

terest and maintenance added to the annual cost for the other works would still leave a good margin between the total annual cost to the Company and the $15.00 per annum mentioned as the probable charge to consumers. It is, therefore, to be a paying concern. (Laughter). The Government, if it built the works would have its improved navigation free, and something to the good from the sale of water for power. It would also yield a water rental to the Ontario Government, which seems to be entitled to at least as much rental at the Long Sault as at Niagara Falls. I thank you, Mr. Chairman and gentlemen, for your kind attention. (Applause).

CHAIRMAN GIBBONS: I am sure we are all very much delighted, both sides, to hear from Mr. Kennedy. That is the kind of talk that the Commission would like to hear, getting to practical work. I just want to disabuse the minds of Mr. Kennedy and the others. It never has been proposed that the Commission should now approve of any plans. Those plans are not the subject of approval. What we did think was that we would get suggestions at this meeting, and hear from people like yourself, as to whether it was possible to dam the St. Lawrence without injuring the interests of navigation. The scheme, if any, would be safe-guarded with respect to nearly all the matters that you have spoken of, undoubtedly, by both Governments before it would be carried out. Certainly there would be no reason why our Government should not build locks; but the lock that is proposed would be handed over immediately and become the property of the American Government; it certainly would not be in private hands. Nobody proposes that a lock on the St. Lawrence should be in the hands of any corporation.

MR. KENNEDY: We had to deal with the proposition as it stands. The proposition put before us is not that it should be handed over to the Governments at all.

CHAIRMAN GIBBONS: Oh, absolutely! That was always the proposition. It becomes Government property immediately.

MR. KING: Would the Chairman indicate if he has in his mind what were the proposed safe-guards to be put on the proposition before us, that one-half of the power would remain Canadian?

CHAIRMAN GIBBONS: I do not want to get into that general discussion. (Murmurs). I am not seeking to avoid it, but I do not think it wise to now discuss it. One of the conditions agreed upon by the Commission is that one-half shall be reserved. I am very glad to hear what Mr. Kennedy has had to say. Certainly if one-half of the power can be developed on the Canadian side, that is the way to do it. I think the Commission will agree upon that. That is a matter that will be dealt with later. The principle has been agreed upon, that one-half shall be retained and applied for the benefit of Canada. The most effectual way to do that is to build a power-house on the Canadian side

for one-half, undoubtedly, if that can be done. (Hear, hear). Those are matters of detail. They are not going to be surrendered by anything that is done here now, one way or the other. The first point is, is it possible to dam the St. Lawrence without injuring navigation at this point? We have not got to that suggestion at all. The plans would have to be approved of by the Commission; they would have to be approved of by both Governments; and all the matters that Mr. Kennedy has spoken of will have to be protected. It is not going to be done in a day, or hurriedly, and we are very glad to have Mr. Kennedy's advice in the matter.

MR. PRINGLE: I understand Mr. Kennedy to say that this river can be dammed wisely and safely. I would like to just know exactly what he means by that, because I understand that is really the question for the Commission to consider, and that is his language on that point.

MR. KENNEDY: I think it can. The dams proposed are not excessively high. There are other dams higher. They are very long, and taking the scheme as a whole, it is larger than anything that has been carried out hitherto; but there seems to be nothing in it which is at all impossible. It is, however, on an unprecedentedly great scale, and things carried greatly beyond the limits of past experience are always a bit risky. There is danger of overlooking something essential. We have horrible examples of that already not far past, of forgetting something or making some mistake. As to the stability of the dams, that can easily be secured. Mention has been made of the possibility of their breaking loose. They ought to be so designed, and I think they can be so designed, that they cannot break away entirely nor all at once. They should not be mere walls with just sufficient stability to withstand the water pressure, there ought to be a wide margin of surplus strength. We know from recent occurrences at San Francisco, Charleston, and Kingston, Jamaica, and from light shocks here, that we are liable to earthquakes. Sir William Dawson has told us that we may expect earthquakes throughout this continent; but I assume that the dams can be made with such breadth of base that although one or more of them might be seriously damaged, and put out of business as power dams, they would not go all in one sweep and allow the impounded water to go down with unrestrained rush. On the other hand, I do not quite agree with my friend Mr. Kelley that it would go exactly as he described. He said, assuming that the water should be suddenly spread, from the dam to the lower end of lake St. Francis, it would make a few inches uniform rise; but I think it could not act in that way. If the dam were swept out the water would rush forward in a great wave. It always does in such cases. We had an instance of the water being dammed up over twenty feet at Montreal by the ice some few years ago. It broke away suddenly and a great wave swept away down to Sorel, sweeping

the ice ahead of it, and it went as a wave, not as a spread-out volume, merely raising the whole level a little. If a dam were suddenly swept entirely away the water would as suddenly follow in great volume, as a great wave, causing devastation along the banks; but that could be avoided. I assume that the dams can be quite safely made, and that a proper scheme can be so carried out as to be a benefit to navigation. (Hear, hear, and applause). Whether the present plans provide for doing it in this way or not is another question.

CHAIRMAN GIBBONS: Mr. Kennedy, I suppose that, necessarily, must be left to the engineers of the two Governments. These details would have to be worked out with great care, and we are so advised—that the engineers of both Governments would have to be consulted in the working out of those details; the Commission possibly as well, but certainly the engineers of both countries.

MR. KENNEDY: Yes, Mr. Chairman, but it seems to me that the scheme is of such tremendous magnitude, and something so far beyond ordinary practice, that the character of construction is fundamental. It is of the essence of the matter and it ought not to be left as a secondary question. There ought to be a well-thought-out scheme, a well-developed plan; and in asking for powers to dam the St. Lawrence the promoters ought to say, "We want to do thus and so," and the Government engineers ought to be put in a position to enable them to intelligently advise. The promoters should not be permitted to say, "We want to dam the St. Lawrence somehow, and having obtained a charter, we will do it as we like." We were told yesterday that the intended first step in construction is to dam the South channel; and the next step is to make the long dam between Long Sault island and Barnhart island; and the third step would be the north shore. I do not quite understand how it could be carried out that way; but that is what we were told. We were also told that the first development would serve for a long time, and that the final development on the north shore would be a matter for our grand-children.

A voice: Oh no!

MR. KENNEDY: That is certainly what we were told yesterday.

A voice: No sir.

MR. KENNEDY: We were told that yesterday.

CHAIRMAN GIBBONS: Please do not interrupt, let Mr. Kennedy get through.

MR. KENNEDY: The charter if granted, would come into force long before our grand-children came into existence. In the meantime the improvements to the navigation of the St. Lawrence on a great scale

will be demanded; but in putting the work in hand, the Company, with its charter and works and vested interests would be in the way. Surely that would not be a wise position. The interests of the country should not be so jeopardized. The whole question was excellently set forth in the protest of the Commission of Conservation read yesterday, and I am sure the Harbour Commission will join in that protest, for it was an excellent synopsis of what may be urged against the scheme.

CHAIRMAN GIBBONS: The Act is not to incorporate any company to carry out the work in the way that is suggested here. It is merely to authorize them to carry it out in such a way as shall be authorized by the two Governments upon the report of their engineers.

MR. KING: Is that an Act of Congress?

CHAIRMAN GIBBONS: Yes, an Act of Congress.

MR. PRINGLE: And approved by the Commission?

CHAIRMAN GIBBONS: We are going to suggest that that be approved by the Commission. That is not in the Act, which says, "approved with the consent of the proper authorities." I may just say to Mr. Kennedy, also, that it is not proposed to authorize in the Act of Congress anything that is to be done for the grand-children. The proposal in the Act is, "the actual construction of the works hereby authorized shall be commenced within one year and be completed within fifteen years."

MR. KENNEDY: There is nothing of that kind in the Canadian application.

CHAIRMAN GIBBONS: Well, there will be.

MR. KENNEDY: Mr. Chairman, the maintenance of the work is a tremendous matter. You see, these dams have to be kept intact all the time. The water has to be regulated in the right way, and the dams have to be kept intact. It is to go on, not for a short time or a generation, but it is supposed to go on for centuries, for aught we know—for an indefinite length of time, anyway. Now, the whole navigation of the St. Lawrence, the whole navigation interests of the two countries would be dependent on the skill and vigilance and good behaviour of that company; and we do not know what that company would do in a short time. I have in mind a recent water-power affair where dams were intended to be kept up, and they were not kept up, and there was trouble about them, law-suits and arbitrations, etc. Any engineer in that sort of practice can recall such cases to mind. We do not know. We are told these dams will be on the ledge-rock, and that is good, but dams do go out. It is not long since a dam right on the solid rock gave way in two places, first at one end and then the other, and did great damage; and in that case the slipping out of a piece of bank on the Cornwall canal was nothing at all to it.

CHAIRMAN GIBBONS: Mr. Kennedy, just allow me. These things have to be done all over the continent, and, in the United States, they have a special Act dealing with just such matters, giving the Secretary of War, who represents navigation, absolute authority to protect the public interest; and I suppose we must assume that the Governments of each country will do their duty. We certainly would recommend that similar powers be given on the Canadian side. It is not being left to the public or to the Harbour Commissioners of Montreal or to anybody else. It must be regulated by the properly constituted authorities who are governing this country; and all those protections will be made. This Commission is not foolish enough to recommend that any private company be permitted to erect dams without proper protection of navigation interests, such as are found by experience to be necessary.

MR. KENNEDY: What I was coming at was that the public bodies interested will feel a great deal safer to be directly under the protection of the Government. (Applause).

CHAIRMAN GIBBONS: I see the point; I agree with you there.

MR. KING: Mr. Chairman and gentlemen of the Commission, if I may be allowed to quote a few words of the Chairman yesterday, "It is a very easy thing to give judgment without the facts;" and if I may be allowed to turn that, it is a much more difficult thing to attempt to state a case or make an argument without the facts. Now, we, the Dominion Marine Association, came to this meeting representing practically all the vessels between Montreal and Port Arthur on the Canadian side, prepared to discuss certain plans, which we thought would be laid before us in the fullest and most absolute detail. I referred to that matter yesterday, and perhaps should not go over it again. That is what we understood as the result of the last meeting of the Commission, and we came here prepared simply to hear that discussion, perhaps to go away with that information, and to come back again. The whole scope of the enquiry now has been changed, and perhaps has been more definitely changed—to my mind anyway—by the remarks that were made from the Chair within the last few minutes. We are told that the intention to-day is simply to decide one question—whether these works are feasible and practicable without interference with navigation interests. Now, we all know—

CHAIRMAN GIBBONS: Under any plan.

MR. KING: Under any plan. It is a very general question we have to-day, and my heart has been very much cheered by the suggestion from the Chair that possibly these plans, when they are finally put in some definite shape, will be passed upon by the Commission; because possibly at that time the Commission will see fit once more to consult navigation interests. (Hear, hear).

CHAIRMAN GIBBONS: Certainly, certainly.

MR. KING: And if that is so I need take up very little time.

CHAIRMAN GIBBONS: You quite understand the situation.

MR. KING: I know we are delighted to have that assurance, because it has put us firmly where we wish to be. Just a word before I sit down. There is a divergence of opinion in our Marine Association, but that divergence does not necessarily make any difference at all in regard to the general principles upon which we are working. Certain lines interested in the movement of package freight are, to a certain extent—and quite properly—in favour of the improvement, because they think that it will shorten the time of navigation at this difficult point in the St. Lawrence. (Hear, hear). For instance, the letter of Messrs. J. W. Norcross & Co. is written by a firm which has nothing whatever to do with the *navigation* of vessels up and down the St. Lawrence. They provide the west-bound freight for the vessels mentioned by my friend Mr. McCarthy, which navigate the St. Lawrence. But approval of the improvement is all subject to the condition as to how it is to be done and the safe-guards which are to be provided. Possibly we can defer that whole question. We have felt from the beginning that that was the main difficulty. When the proposal was first made that the St. Lawrence should be dammed from bank to bank, the resolutions which we, and other bodies sent in, speak for themselves. To quote the Chairman again, resolutions are not of much avail, and we have dropped the resolution part of it, although I have one in my hand which I must present before I sit down. (Laughter). It is not from our Association, but was handed to me by a friend who was called from the room. We followed the plan of resolutions for some time because we feared the whole proposal very much. We were looking for information, and we wanted to delay the whole thing till we knew where we were. We have not the information yet. We refused the proposal, as Mr. Wright pointed out this morning, that we should entrust our case to engineers—although we would not have to pay the engineers. That was not the question, but we would be running the risk of having them say, "Oh, that is all right; that won't interfere with navigation interests;" and we would be out of court. What we wanted from the beginning, what we want now, is to know in the fullest detail what is proposed, so that we would be able to take our own engineers and our own navigators and have our own meeting, and, after a careful study of the proposition, to come to you with reasonable suggestions from the point of view of navigators, as well as from the point of view of engineers, without being bound to the whole case. It is not for me, as representing the Marine Association, to protest as a Canadian against the handing over to a private corporation powers and franchises which we believe ought to be conserved for the public of Canada and of the United States. That is a

question that will be debated, perhaps by other representatives. But, as representing marine interests, I do feel it my duty to say that we do not think it is right that a development scheme should be put before the Commission for the purpose of developing power, with navigation interests to be protected as best they may be. We think the development of the navigation interests to be of *primary* importance, and they ought to be looked upon in that way throughout the deliberations. We think, too, that the scheme, if it was for the purpose of improving navigation interests, and, incidentally, developing power, would be one that we could not possibly question for a moment. We do object, because it is an effort to develop power, and, *incidentally*, to protect us. We say that the cart is before the horse entirely. Now, the Richelieu & Ontario Navigation Company, of course has very, very serious objections. I do not propose to go into them, because the company will be represented. Mr. Calvin's interests have disappeared from the discussion for the time being. As to the freighters, we would consider the suggestions reasonable, if all these conditions and qualifications are looked after; but we are ignorant at present, and the matter simply stands in that way, and we hope to come back before the Commission at a later date to see the plans.

Then as to this resolution I have. I did not intend to throw any doubt upon the propriety of the resolution or the words expressed here, because I agree with it myself personally. Mr. W. F. Nickle, the member for Kingston, was just called away to the House. He had been asked by the Kingston Board of Trade to present this resolution, and asked me to do it for him:

KINGSTON, ONT., Feb. 6, 1910

To Whom it May Concern:

Resolved by the Kingston Board of Trade that a dam across the Long Sault would be very detrimental to the navigation of the St. Lawrence river as it is impossible to tell how the currents would be changed by a dam of the nature that it is now proposed to erect.

Furthermore, the Board of Trade of this city protests against the water-power now owned by the country passing over to the ownership of private corporations; that these powers should be conserved for the use of the people in the future, that we have no right to give away the heritage of those who will come after us, although at the present moment we have in that vicinity a surplus of power, which does not mean that we will have a surplus of power a few years hence. Besides, if cheap power could be obtained, there is no reason why electricity could not be used for heating, and for smelting, as well as for power propositions.

These things will likely come about, therefore it is to the interest of our country that this power should not be given away to any private corporations, and we protest against same strongly.

(Signed) KINGSTON BOARD OF TRADE
JAMES RICHARDSON
President

CHAIRMAN GIBBONS: I do not want to repeat again, but I want it distinctly understood — Mr. King understands the situation — that it is not proposed to finally deal at all, at present, with any particular set of plans or propositions. It is proposed by this Commission that, if it is thought feasible, that, if it is possible to develop power as well as preserve the interests of navigation, any plan to carry these out should be again submitted to the Commission, and should be subject to the criticism of the public interested, and should further have the approval of the engineers of both Governments.

As to the other point that is raised viz., whether a private corporation or the public should deal with these matters, that is not a matter that can be dealt with by the Commission. Personally, I think these should all belong to the country and should be preserved for them; but that is not the business of this International Commission. We are dealing only with the International question. You can all understand that the American members of this Commission have very little interest in the question as to whether the power can be brought from Niagara to Cornwall or not, and in the other questions that were discussed yesterday in connection with the Hydro-Electric Commission. I think it would be better if we would stick to the broad question, for, even if power can be brought from Niagara Falls to Cornwall, that is no reason why the Americans should not deliver power on their side.

MR. G. H. WATSON, K.C.: Mr. Chairman and gentlemen, I have been requested to appear with some other gentlemen, to represent a somewhat different class of interests than those that have already been heard from. I refer to the municipalities which are, or will be affected, and which border on the river. I refer particularly to the town of Morrisburg, and the adjoining municipality of Williamsburg, as well as to other municipalities having a very considerable frontage on the river.

MR. MCCARTHY: What are the other municipalities?

MR. WATSON: Particularly, I represent Morrisburg and Williamsburg, Matilda and Osnabruck. Now, Mr. Chairman, it is felt, by those whom I represent, that this scheme which has been proposed and is under consideration by you, is not a feasible one and should not have your approval. The municipalities, as such, are very seriously concerned. These particular localities and sections were perhaps the first in the Province, or amongst the first in the Province, to be settled, and that by a class of people whom we will always all of us revere. The present occupants are their descendants, having what they think are their vested rights and interests, in property particularly, seriously interfered with by the proposed scheme. A few of the circumstances and conditions make it reasonably manifest, I think, that they will be interfered with in material respects. In the first place, in a distance

of about 15½ miles, from Morrisburg to the upper end of the Cornwall canal, there is a fall of about 10 to 10½ feet. That is sufficient—and no more than sufficient—in the best conditions to maintain the current which will keep the river open. This proposal is intended, if put into effect, to interfere with that current. Now, it is a further circumstance that, in that vicinity, there are many narrow points in the river. I need not mention them particularly because you are all so familiar with them; but the narrowest point in the river is near and a little above the town of Morrisburg—perhaps a few miles above. Now, it is apparent that this commercial proposal to dam the waters of the St. Lawrence practically from shore to shore to a height, it is said, of from 45 to 50 feet, will materially obstruct the flow of the river and change the water conditions as they now exist. The water would be dammed back, and those whom I represent feel that the inevitable result would be that it will be dammed back upon their property and their interests adjoining the river. Now, that is the strongest possible reason, I think, why the project should not be deemed to be a feasible one. If it is going to injure, or destroy, or interfere with the vested property rights and interests of a large section of that community, then it ought not to be proceeded with, unless for more far-reaching and more important reasons. Such interests should not be called upon to sacrifice or to be endangered in their position unless it is a matter of actual necessity—such a necessity as it is deemed may not be said at all to arise out of a commercial proposal, promoted by individuals for profit to themselves. That is the position.

Bear in mind, that the town of Morrisburg has its leases from the Government of Canada for the purpose of operating its own local franchises. It has a right to the exercise of these. Amongst others, its waterworks, built at a cost of $40,000—no small sum for such a municipality; its electric light works—another sum equal to that; and then its electric power, perhaps $100,000. These are large expenditures from a municipal standpoint and apart from individual, or company, or partnership interests, are very considerable for that place. On at least three occasions in the past, lands in the vicinity of Morrisburg have been flooded by reason of the rising of the waters of the river. Serious damage has been suffered on some of these occasions, so that even as matters stand now, these land owners are face to face with some dangers. The moment that the proposition of constructing and maintaining a dam, to the height of 45 feet, within a short distance from these conditions, is put into effect, then it is not only probable, but almost certain, that sooner or later, their lands will be flooded, causing great damage and loss. What is to be their indemnity? Why should they be put in that extraordinary position? They are not to be ignored. They merit the earnest consideration of this Commission. Of course

it may be conceived that in the case of undertakings by the Government of the United States, and by the Government of Canada for national purposes of either country, or both, they might make some sacrifices if given sufficient protection and indemnity. That, however, is not the present proposition. We are here face to face merely with a commercial proposal for the benefit of the promoters, and nothing more and nothing less than that. The project not merely endangers our vested rights and interests of long standing in the country, but in addition, it is proposed by means of this scheme, I think, to vest, not in the Government or Governments, but in individuals, the property rights and interests in the waters and in the soil of this great International highway between the two countries. We all recollect that under the terms of the Webster-Ashburton treaty the waters of all these International highways were expressly and for all time to be maintained free and open for the use of the citizens of both countries. This proposition would mean the subversion of the most material term and condition of the Webster-Ashburton treaty, because it would take from the rights of the citizens of these countries, and would vest property rights and interests, in individuals forming and maintaining a commercial corporation.

Now, then, if it were proposed to the Parliament of this country, by gentlemen, however high in repute financially and otherwise, that the Government should give over its rights and interests and control in this river to a body of Canadian citizens, it would hardly be entertained as a serious proposition by our Government. It may not be that the legislature of the state of New York and the Congress of the United States might regard the matter differently. It cannot be conceived that they might be disposed to entertain a similar application to their legislature and their Congress from Canadian citizens and give over to a new corporation composed of foreigners—let me so speak for the purpose of illustration—the control and the possession of their rights and interests in the river. They would be very generously disposed indeed perhaps for the first time to do so. But with us, it is even a more serious proposition, I think, than it would be with them, for the reason that we are now called upon to answer the proposition that these rights should be given over to American citizens, who, for the most part, are the promoters and petitioners for this enterprise, and whose plant will be, for the most part, on the American side. Their interests will all be pro-American; they would control it absolutely from the American side, even although subject to joint legislation for corporate purposes, between the two countries. The capital is to come from there; the property and assets are to be distributed there; the power goes there, and will be distributed there through New York state and through adjoining states. In that respect

vested rights and interests are at once created in connection with the contracts which would be made by this Company. These contracts would lead on probably for a term of years, and the Company would be under obligation to fulfil, and the grant by Parliament of the franchise would put the Government under obligation to permit them to fulfil them. So that the decision carries with it continuous rights and obligations which cannot be overborne or broken. Not only that, but note another element of vested rights and interests. This Company, having a large capitalization necessary for its operation, commences to float its bonds and secures capital of other citizens. Vested interests occur at every possible point, not merely arising out of contracts, but arising out of those flotations and investments in the bonds and securities and, in addition, arising out of investment for manufacturing purposes. So that once done, once this is granted, it can never be recalled. Once possession is yielded, then possession and control of the waters of this river are forever gone, not only from the Canadian Government but from the Government of the United States, and become vested in special corporate interests or in individual interests.

It seems to me that this proposition cannot well be said to be feasible at the suggestion of individuals working for profit and for gain. The reply that was suggested in the first place was the necessity for power, the demand and the supply of power. Mr. Chairman, you and the other gentlemen of the Commission must have been very greatly impressed by the full and frank statements of Mr. Beck on behalf of the Hydro-Electric Commission, on behalf of himself and the provincial Government. He stated that they were prepared to supply all the power requirements of every community in the Province. That is far-reaching and, I submit, from the power standpoint, is unanswerable; and it comes from the highest provincial authority on the subject. Then, again, every one must have been very greatly impressed with the forcible and concisely stated views of the Conservation Commission, presented through its Chairman, Mr. Sifton. Mr. Chairman and gentlemen, I submit that having regard to these conditions and to these weighty grounds and reasons, that this commercial proposition as now proposed, is not fair, or proper, or feasible.

MR. LAFLEUR: Mr. Chairman and gentlemen, as I told you yesterday, I appear on behalf of the Montreal Board of Trade, and represent no private interests at all. We are guided simply by a desire to protect the commercial interests of the community, and the moment we are convinced that they are not jeopardized our task will be done. After the repeated assurances that you have given us to-day that this project, which we regard as unfinished, inchoate, at the present moment, will, when it has reached a proper degree of perfection be re-submitted to this Commission, and that we shall have an opportunity of discussing

it and of ascertaining whether it really meets the requirements of the case, it would be inexpedient for me to address you on what I suppose is the main question to-day, that is, whether this scheme as propounded interferes or is likely to interfere with the navigation of the St. Lawrence river.

You must not be surprised or take it amiss that we, uninformed, uninstructed as to what was really intended to be done, should have come here in the position of objectors to the scheme. The burden of proof was surely on those propounding the scheme to have all the information ready for your Commission, and not only for you but, I submit, for the general public whose interests are at stake. It was their duty to have all this material ready for consideration before they asked for the adoption of the scheme. I think you must have been impressed by what Mr. Kennedy said a moment ago—and he is a very high authority on the subject—that although there may be some details which can be attended to at a later stage, some of those details may prove to be fundamental, and it may be that the scheme as ultimately propounded to you, and as expressed in plans and specifications, will present such dangers as might induce you to report unfavourably to the scheme. That is why we desire to reserve what we have to say until a later date, until those on whom is undoubtedly the burden of making their case may be ready with the proper material and information. My learned friend Mr. McCarthy, treated the matter as so clear, so simple, so obvious that nothing was to be said on the other side. Now, what strikes me, Mr. Chairman and gentlemen, is this: If the thing is so simple, if it is so obvious from the engineering point of view, why all this mystery? Why are the plans, which were promised a year ago last November, not forthcoming? What is the meaning of this extraordinary secrecy, which is maintained up to the very moment when the scheme is presented for final consideration? That is a thing which reasonably excited our suspicion, and we cannot conceive for a moment that those who are promoting the scheme should ask you to give your judgment upon the matter until they have afforded not only yourselves but the general public the opportunity of criticizing their scheme. Now, that is all I have to say on that branch of the case at the present moment. I am quite conscious of the fact that you do not care to hear from counsel so much as from experts; and it was because I desired to be able to furnish you with expert testimony that I informed you that under the present circumstances, and with the lack of information which existed, it was impossible for us to offer any assistance to you. The evidence which Mr. Kennedy gave to-day is precisely the kind of evidence which we desire to have to submit for your information. It is that kind of intelligent expert evidence that, I think, should be weighed carefully by your Commission. It is not an *ex parte* statement

of the engineers for the promoters unsupported by any reasoned opinion. I listened with some surprise to the vague generalities which were enunciated by those for whom I have the highest respect as experts; but never in my life have I heard such vague generalities as they indulged in at this meeting; absolutely nothing that they could be examined on.

I am further impressed, and my clients instruct me to present for your consideration another view which was enunciated by Mr. Kennedy to-day. It is this; in making up your minds whether you shall recommend this scheme to the Government in some form or other, you should consider whether the proper development of the St. Lawrence navigation through a system of enlarged canals, should not be taken in hand by the Government (hear, hear) rather than to allow power schemes to be first placed so as to obstruct the river and impede the action of the Government in the navigation schemes later on. (Hear, hear). Now, I understood from a remark made by the Chairman a moment ago, that this was beyond the province of this Commission. You have considered it sufficiently within your province to make provisions—

CHAIRMAN GIBBONS: I did not speak about that; I did not so understand it.

MR. LAFLEUR: I am glad if I am mistaken, because it seems to me that this is germane to the object you were going to recommend to the Government, and your recommendation of course will have enormous weight on the technical question. You are going to recommend either that this scheme is feasible or that it is not feasible, and that it should be carried out on certain lines approved by you. Now, if it be true, as we are told, that the Government has in view the enlargement of the canals on a considerable scale, if it be true, as Mr. Kennedy says, that the proper way is to encourage this enlargement of the canals, and the damming of the river for navigation purposes, and, incidentally, to develop power, it follows as a matter of course that all this work should be under Government control, should be Government work. It is impossible to separate the two questions, and I would ask you to give that matter your most serious consideration in the recommendations which you are about to make. I was very much impressed with what Mr. Kennedy said upon the subject; and it is entirely in accordance with the views which my clients have instructed me to present to you.

MR. CUMBERLAND: Mr. Chairman, on behalf of the Board of Trade of the city of Toronto I am very glad indeed to follow in the lines of the Board of Trade of Montreal in maintaining that every use that is possible should be made of this waterway for the advantage of all the people, and the trade of both countries. I understood you to say a few minutes ago, sir, that this meeting was not to be considered as being

for the purpose of considering any particular plans or propositions. I also understood, that it might be considered within your powers, to make some recommendations, upon the general proposition, of the possibility of the river being used for development purposes; and that it was within your power to advise the Government as to whether it might be done on a government basis.

CHAIRMAN GIBBONS: Well, hardly. No! I said that was a matter for Government policy, but not for us.

MR. CUMBERLAND: Well, at all events, you asked for information upon the general principle, so that you could report upon the general principle without being bound as to whether it should be a development by a company or by a Government. Then, I would ask under those circumstances, that it would be quite understood that the notices of this meeting shall not be considered as binding upon anyone; because the notice of this meeting calls it, not for a general purpose but for a particular purpose, for the particular purpose of considering the development of power at the Long Sault rapids by the Long Sault Development Company of New York and the St. Lawrence Power Company of Ontario. I understand, therefore, that the definition of the single purpose of this meeting has to be construed to be, that we are discussing the general proposition and the general possibilities, not any particular plans. I am glad of it, because we did not have them before us, and that was one of the main points which the Board of Trade of Toronto raised. I will then proceed to speak upon the subject on general principles, not solely as a member of the Board of Trade, but as one having had rather a long association with navigation.

I understand the general principle is: That the developments are to be subject to the rights of navigation. Tersely, this is a navigable river. It has its whole flow eastward. Its capacity for being used eastwards is admitted; I need not go into details. Westwards there seems to have been an impression that it was not of use and never had been used. On the contrary, the whole of the central sections of the United States and the whole of Upper Canada were at one time dependent upon this river for the interchange of their trade, and the internal trade of the districts on both sides of the lakes above these Long Sault rapids, was carried up by batteaux through that river. It was, at that time, a navigable river, used for navigation purposes, as a means of communication for the trade of the two countries. I hold, therefore, that the rights of navigation are established both eastwards and westwards. If we are going to deal with the future centuries in respect to this river, it is not unfair that we should look back for 60 or 70 years, when this river was used for upstream navigation. I take it, then, sir, that the desire of your Commission is to see how far any division of the flow of water upon this International stream can be made, so as to permit of

development possibilities on each side, subject to the interests of navigation. There is no other instance that I know of in which you have dealt at all differently. Take, for instance, at Sault Ste. Marie. There you have divided the flow of water proportionately between the two sides of the channel, subject to the right of navigation. I hold, therefore, that the rights of these two countries to navigation upon that river are inalienable, and its waters can only be dealt with for the purposes of development subject to the rights of navigation.

I will come to another point. It divides itself practically into the use of navigation for the two classes—passenger and freight trade. Consider it first, on passenger and tourist rights in the Long Sault rapids. These are spread far wider than has hitherto been brought before this Commission. These rapids are one of the wonders of the world. The Long Sault rapids are as truly one of the wonders of the world as are the Niagara falls. There are no other rapids in the world like them. There are no other rapids in this world where a large-sized steamer can go down their billowing waters, and, under careful direction, give the people an instance of the mighty power of a mighty river, as is given in the Long Sault rapids. They are incomparable; they are unequalled. Now, this is one of the marvels of nature. The proposition implies that it shall be destroyed. I hold, sir, that your Commission is not likely, from your past actions, to recommend such a proposal without very considerable deliberation. What are the rights that you are to consider? They are not the rights of one single navigation company; they are the rights of the travelling public—people that come from other lands as well as this. I submit to you that they are the rights of the city of Toronto, of Buffalo, of Niagara Falls, of every city along the line of the northern tourist route that is interested in the passage and accumulation of passengers and tourists through their districts. There is not anyone in Buffalo, Niagara Falls or Toronto who is interested in any way in the incoming and outgoing of any tourist, who has not to come under your consideration as having a vested right in those rapids. We can see what can be done with that business if we look back but a few years, when tourists on that route were served very differently from what they are now; when we see the constant increase, the strenuous effort on the part of the navigation companies who are developing this line of tourist travel to keep up with the constant increase of people from all parts of the United States, and of the world, who are seeking the St. Lawrence river. What will it be fifty or a hundred years hence if you are to destroy one of the wonders of nature? Supposing it were said from a commercial point of view, "There is a great deal of water going to waste over Niagara falls; it would be much more profitable that we should shut up the Niagara falls and take all the water and give it into the hands of developing companies on either side." That would be a practical proposition. You could do

it, but you would not. Why? Simply from the interest of the travelling people, and our own people, who go to see the scenic grandeur which the Almighty gave and which we are allowed to keep. I believe, sir, that the Long Sault rapids stand exactly in the same position as the Niagara falls. You may take certain portions out of them and develop them; but in the face of public opinion you cannot destroy them.

Then as to the subject of Canadian vessels and Canadian freight. I submit that there are larger principles involved than have yet been spoken of. It is proposed that this canal should be entirely upon the American side. I am very glad indeed to hear from Mr. Kennedy that it might also be possible—because engineers, ever since they constructed the tower of Babel, have come to the conclusion that if you give them money enough—

Chairman Gibbons: That is not a detail agreed upon at all—that it should be entirely on the American side. There are suggestions that there should be a lock on the Canadian side. I mean that those are details that perhaps we had better not discuss.

Mr. Cumberland: I understood we were discussing the question as to whether it was to be on the American side. It was said to be on the American side, and the letters that were presented from those various companies deal with it as a lock on the American side, and I claim that that is before this Commission at the present time, from those letters that have been already presented. Now, I want to give the reason why. Those letters state that an offer has been made to those various transportation and freighting companies, and their approval has been obtained, for a lock to be placed upon the American side. That stands unquestionably before us at this present time. Now, they have been promised full use, and in consideration of being given full use, they have modified their acceptance—as Mr. Kennedy has pointed out, with one or two "ifs" in it. A full use for how long? For to-day or forever? A promise of full use given by whom? By a private Company, and only by a private Company.

Chairman Gibbons: I do not want to interrupt, but any locks will be handed over absolutely to the respective Governments, not to be kept in private hands at all. Under no scheme that will be approved by this Commission will any locks be held by anybody privately.

Mr. Cumberland: I am very glad to hear that; but before an absolute consent is given to the diversion of the water for that purpose to that side, there is something more required. It is a good thing to say that full use should be given. Now, I hope my American friends upon the Commission will forgive me if I say, as a navigation man, that the offer of the use of the lock is not the dominant question. The ability to use it, the permission to use it, is very much more important. You might offer it, and say, "You may use it," but some other person might step in and say, "You shall not."

May I recall some of the past of navigation—doing it in this way only to say that we have learned to smile at the action of the American Government and to forget it, except as a lesson to be learned in any agreements that we may make with respect to the future. In 1870 the only canal on the Great Lakes' system was on the American side at the Soo. We had a little trouble up in the Northwest, and Lord Wolseley and his men desired to go there. We loaded them on the steamers at Sarnia and Collingwood and took them up to the Soo, but we were not permitted to take them through the canal. Passage through the canal was refused to us, not only to the men, but whatever they needed in the way of supplies. We had to slip another steamer through the Soo canal, up to the upper end of the canal, at a place called Pointe aux Pins, and with that canal lying empty on the American side we had to transfer all our men, our baggage, our munitions, our food, across from the Canadian Soo up to Pointe aux Pins and load it on another steamer. It did not last long. What was our answer? We built our own canal; and we have given the use of that canal forever, without any objection, to our American friends. I will give another instance. In 1872, under the Washington treaty, it was promised that the canals on both sides were to be used on equal conditions by the citizens of both nations. Has any Canadian vessel gone down the Erie canal yet? No; none have ever been allowed to, because the state of New York—the state in which this proposed canal would be—has never given permission to any Canadian vessels to use the New York canal.

COMMISSIONER CLINTON: Permit me to interrupt you. There is absolutely no bar to vessels capable of navigating that canal, whether Canadian or American, as they are at liberty to use it all the time without paying toll.

MR. CUMBERLAND: I hope that when the enlargement of the canal comes, so that larger vessels can go down, that then our American friends will take a larger view of the proposition.

COMMISSIONER CLINTON: I beg your pardon. We never have presented any obstacles whatever to the use of that canal by Canadian vessels. But you speak of vessels; the canal is adapted only to canal barges drawing seven feet of water.

MR. CUMBERLAND: Quite true; I know. Would you allow me to ask whether a Canadian barge can go down the Whitehall canal in the state of New York?

COMMISSIONER CLINTON: That is a proposition with which I am not acquainted.

MR. CUMBERLAND: The equal use of the Canadian canals was given; but the use of the New York canals was not given. I will give another illustration. Under the arrangement made in 1872 a Canadian barge loading at Ottawa with lumber can proceed only to the United States,

but is not permitted to go any farther. It must unload there and go back again. It cannot cross the boundary through the Whitehall canal and carry its cargo. An American barge can leave Albany, go up to Ottawa, load with Canadian lumber, go back through the Canadian canal and back through the American canal. We give the American barge the full use of our canals but the state of New York does not give the Canadian one the full use of the Whitehall canal. I only mention these as being still excellent illustrations. Again, in 1892—I think I am right in the date—Canada was taking tolls upon the Welland canal; the same right of usage, the same rate of toll being paid both by Canadian and by American vessels. We conceived it for the interests of our port at Montreal, that it might be desirable that, when grain was going through for export from Montreal, carried from the Upper lakes in an American vessel or in a Canadian vessel, no matter which, when it was exported from Montreal the vessel should have a rebate of the tolls paid through the canal at Welland. That was a fair proposition. Unfortunately it turned out that it was not so considered by some other people, and the state of Michigan put on a toll on the Sault Ste. Marie canal, and all Canadian vessels, which had previously passed through free and upon exactly the same terms as the American vessels, had to pay tolls during that season. Now, I mention these, occurrences, sir, only as things which I say are to be taken into consideration before an offer, or a promise, is given of a free use of the proposed works at the Long Sault. These points must be settled so that there shall be unquestionably the right of use for all time. In the times that I have referred to, we were looked upon as back-woods voyageurs, but with the better relations and the greater friendliness that has grown up between Canada and the United States, I believe that arrangements could and would be made between the two Governments regarding the rights of navigation; *but not through the medium of a private company.* This private Company that offers all those rights to these gentlemen who say they accept them, cannot keep its agreement. They may say "You may use them," but they cannot give them the right of using them, which is in the hands of the Governments only. Therefore, it is a proposition which begins not with private companies, but begins with governments. So much, then, for the freighting. The Commission may say how much water may be diverted for the purposes of these canals, but they cannot, in any way, give a certainty of the continuation of their use.

With respect to the electrical energy, I think we may take it from the proposition that we have seen before us, that the main object is the electrical energy—as Mr. Kennedy very properly put it—with the canal proposition thrown in. That is the real basis of the project. And I do not wonder at it, when we consider that it has been said by the engineers

that 600,000 horse-power can be developed. I do not wonder at those who are seeking for such opportunities of development striving with every endeavour to obtain them. It is a larger proposition than Niagara falls. I am told that the total output of Niagara falls is 450,000 horse-power, which is only a small thing in comparison with the Long Sault. The Niagara falls is only two-thirds the size of it. No wonder attention is given to it, and no wonder that there is such energy exercised in trying to obtain possession of it.

CHAIRMAN GIBBONS: I would just like to ask a question, and get to a point. Do you think that, if 600,000 horse-power can be developed without injury to navigation, it ought to be done? Or should it remain idle?

MR. CUMBERLAND: Are you asking me the question?

CHAIRMAN GIBBONS: Yes.

MR. CUMBERLAND: I say, subject to the rights of navigation, you can raise as much as possible. I did not say 600,000, but the proposition states that they can maintain 600,000; and this is all on the American side. There is a smaller portion, somewhere about 100,000, on the Canadian side, with another little step—to put in a canal and a minor power-house. I am glad indeed to think that there are possibilities for the creation of power in that neighbourhood; and those private companies say—and evidently Brockville and Cornwall have been very much affected by it—"we will give you all the electrical power that you want." Can they? They cannot. Who says whether they shall or whether they shall not? The American Government. And at this present time, as I am advised, there is no authority for export. At this present time when those offers are being made to Brockville and Cornwall and other places, and to Canada for the future, there is no power for the export of one single pony-power of electrical energy from the American side to the Canadian; not one. How much is the offer worth? It depends entirely upon the Government; therefore it must begin with the Government. Now, supposing that this whole power was on the Canadian side and we could develop it all on the Canadian side, we cannot get an absolute right of exporting it to the state of New York. To-day the surplus power at Niagara Falls happens to be on our side. What license can you get for export to the United States? For a year? No. For a day? No. All that you can get is a revocable license, subject to revocation at any time. Now, under those circumstances, seeing that this is the condition of the use of the power developed from this water in the Long Sault channel, the first point to settle is not, how should it be done? Or, who shall do it? But; what are you going to do with it after you have got it? I think those are prime points. Because remember, we are dealing not with to-day; we are dealing with Canada in its future. I submit, there-

fore, that the proposition should be turned the other way round, and the result of the use of the water should first be settled; after that, how it might be done; and then after that, who is to do it.

Now, I want to address my friends from the United States and our people from Canada upon the general subject. I want to speak for a moment or two on behalf, not of navigation, not of any particular interest, but of the whole people of the two countries. I understand that it is the broad proposition which is before us. While, a few years ago, there might have been some reason—I would not say there is now—for considering a proposition to divide the water-power with a water company, there is nothing in this proposition that will advance that private company one iota. Why is there such hurry after the matter has been in abeyance for so long a time? Why do we find these agitations among the municipalities who have been asked to send up their representatives? Why do we find these consultations upon changes of plans being conducted, not with the Commission but outside the Commission? Why this buying up of opposition, and making arrangements with some of those who were opposed in their trade to this proposition? What is the reason of all this? Because our investing friends have got their ears to the ground, and their eyes to the sky (Laughter), and they see and they hear what is coming. From one end of the American republic to the other, the people are to-day agitated more than they ever were, upon the conservation of the natural resources of the country. Nothing is so prominent in the questions which are agitating people of the United States at the present time as the preservation of the resources of the land and the water for the benefit of the people, and to prevent them from passing into the hands of those whom they are accustomed to speak of as the "barons"—the beef barons, the coal barons, the water barons, the electrical barons. I am not using those terms, but merely quoting terms that have been used in the United States, since the time that this proposition was first brought before you.

CHAIRMAN GIBBONS: You can call us all "barons."

MR. CUMBERLAND: It has also arisen here, and I want to say that your duty as a Commission, your interests, are the interests of the people at large. It is not to consider whether it is feasible to hand over the natural resources to a private corporation, but to preserve by all means in your power the public right for the people. On our Canadian side the same question exactly has come up, later than in the United States. I am glad to say that we are following their example in that respect, and conservation of natural resources is now becoming a dominant question with us. You have the report of the Executive Committee of the Canadian Conservation Commission before you. I, therefore, claim that in taking this matter into consideration you must view it, not from the

point of view of a private proposition, but as taking away a public right. Stealing the rights of the people, in the alienation of their natural energies must stop, and stop now. It will be impossible in the face of public opinion to go on and to propose, by public representatives, to hand over to private individuals the rights which belong to the people at large. The water belongs to the people; the power belongs to the people; and to them only can the rights of it be transferred or be approved of by a Commission which represents the people. (Applause).

MR. MEREDITH: I have only a word to say, Mr. Chairman and gentlemen. Anything that I had to say is practically done away with by the fact that you stated, Mr. Chairman, I believe for the Commission, that what you are really going to do now is to decide whether any scheme—not this particular scheme, but any scheme—is feasible. That, I understand, will be reported further with the plans of any scheme, if any scheme is considered feasible—the promoters will come back to you.

CHAIRMAN GIBBONS: We are going to recommend that they come back. Of course we have no authority to settle that; but that will be the recommendation, I understand, agreed upon by all the Commission—that no scheme should be carried out without being approved by our Commission.

COMMISSIONER CLINTON: Practically a condition of the recommendation.

MR. MEREDITH: That is what I want to get at, and that when they do come back for your consideration, the parties who believe they are interested in the matter will be given an opportunity of putting before you their views on those plans; that is, I understand, the statement?

CHAIRMAN GIBBONS: Yes.

MR. MEREDITH: The only other view I was asked to put before you for your consideration was this; that is: Should you think any scheme is feasible, that you should consider the view of the Shipping Federation of Canada, that the scheme should be one that would be constructed and operated by the respective Governments who have the rights in the waters and in the river bed; that the giving of these tremendous rights for all time to any individuals, no matter how much respect we may have for them, would be a detriment, and a huge detriment—almost too large to qualify by any adjective—to both countries. That is the view that I have been asked to express; the only one apart from asking for the consideration of plans.

MR. R. C. SMITH: Mr. Chairman and gentlemen, I suppose I might as well say what I have to say at this period as at any other. When a person comes forward and frankly admits that he represents private interests, he is, so to speak, a marked man. But it may be just as well that you should look at this thing in the concrete, and that you should take into consideration the actual financial interests that are

jeopardized by this scheme. First let me say that the suggestion made at the opening of this discussion, that Montreal counsel here, represented in a concealed fashion the Montreal Light, Heat & Power Company, was one that was purely gratuitous, purely imaginary. Neither my friends Mr. Meredith nor Mr. Lafleur nor myself have any connection whatever with the Light, Heat & Power Company of Montreal; and the attempt to drag in prejudice against that Company 350 miles away from home was certainly not creditable to arguments presented in favour of so great a scheme. It is probably an indication of the poverty of argument in favour of it. I wish to answer another thing that has been said, or rather suggested, by a number here. It is this: that the people in the vicinity of the Long Sault are starving for power; starving, dying for power. In the last report, the St. Lawrence Company stated that they had 3,000 horse-power undeveloped right there at Cornwall. There is power at Merrickville, there is power at Morrisburg, there is power all over there. And then, in addition to that, we have the authoritative and the official statement of Mr. Beck, a member of the Government of the province of Ontario, that they have offered power to all those municipalities; that they are ready to supply power, not at the figure suggested by this Company, but at a very much lower rate. So that all this hue and cry, these speeches that have developed a little bluff here in this meeting, are quite aside from the question, because I submit that they have been most emphatically and completely answered by Mr. Beck's statement before this Commission.

CHAIRMAN GIBBONS: Mr. Smith, will you allow me—because we might as well thresh these things out. Assume there was no immediate demand in Ontario: Can an International Commission refuse to permit power to be developed, if they want it south of the line because we have no demand here? Just assume that position; I would like you to answer.

MR. R. C. SMITH: I shall be pleased to assume exactly what the Chairman suggests, and it opens up a very large question. All these International questions ought to be approached with absolute courtesy; more than that, with delicacy. But as I shall have occasion more than once to refer to these International questions, I say now that I shall make no apology for doing so, because I have confidence in the men here, who are large men of the world, men of affairs; and there ought to be no mealy-mouthed hesitation in discussing International questions before them. I shall, therefore, address anything I have to say, perhaps more to the American than to the Canadian members of the International Commission. If you are going to consider, in the recommendation made to the Governments, the necessities which exist for the power which it is proposed to create, then, I say, with all possible respect, that the Canadian section of the International Waterways Commission ought to consider what are the requirements of Canada in the vicinity.

CHAIRMAN GIBBONS: Of course.

MR. R. C. SMITH: I will not say that it should have a controlling or a determining influence upon your judgment. Far be it from me to dictate in the slightest as to your duty. I will not even suggest that it ought to have any controlling effect; but I suggest that it ought to have a very potent influence in determining the recommendation which the Canadian section would make. If it appeared that there was no demand for power whatever, if it appeared that such demand as did exist could be fully supplied with waste power, undeveloped power, right on the spot, then I say that would be at least a proper subject for the International Waterways Commission to take into consideration.

Let me now say briefly what I have to say on behalf of the Richelieu & Ontario Navigation Company. If I had had any notes at all, I would feel like suggesting that Mr. Cumberland had stolen those notes from me, because he has presented and has elaborated the case for the Richelieu & Ontario Navigation Company much more cogently and gracefully than I could pretend to do. The Long Sault rapids have been navigated since 1843. The Richelieu & Ontario Navigation Company has grown from small beginnings to be very much the largest and most influential of the inland navigation companies. It has a capital of five million dollars, and fleets of vessels that are certainly no discredit to this country. The service has been largely improved. The accommodation has been increased. The Company has spent enormous sums of money all over this continent and elsewhere, even in Europe, in advertising this St. Lawrence route. Now, it is all very well to brush this all aside and say, we must not allow 'shooting the chutes' to interfere with industrial development. I suppose, sir, that we must be content to have a car of Juggernaut break down all that is beautiful and all that is enjoyable in life any time. I suppose all our beautiful waterfalls are going to be utilized in generating electrical power, and all the picturesque and all the beautiful is to be ignored. But I am not going to put it upon that æsthetic footing at all; I am going to look at it from another point of view. We find, by the most carefully compiled statistics that can be obtained, that this trade, which has gradually been built up by the Richelieu & Ontario Navigation Company brings over 50,000 people to this country every year; and that those people have left from $2,750,000 to $3,000,000 every year among our trades people. They spend $3,000,000 in our country every time they come here. Now, I say that this is worth something. You have stated over and over again that the Commission has unanimously sanctioned the principle that navigation interests are to be paramount. Now, the whole thing can be stated in one word: we have now, a natural channel; they ask you to substitute an artificial channel. They try to convince you that that is not going to be any impediment to navigation; but in the very next breath my

learned friend Mr. McCarthy, with his well known eloquence, told you, "This is going to be the biggest lift-lock in the world;" the Development Company is going to bring people from all over the continent to see this mighty lift-lock that is higher than any other that has ever been constructed. It is going to dam the whole of the St. Lawrence river, and it is going to make us pass through the highest lock that has ever been constructed, and they want you to say that it is not an interference with navigation.

Let me refer incidentally to another matter. Mr. Calvin stated here yesterday with great clearness and great frankness, which I admired, that he had been, so to speak, disinterested; that he, representing the rafting interests—may I use a vulgar word—had been "squared." (Laughter).

MR. MCCARTHY: The timber, you are speaking of?

MR. R. C. SMITH: Not square timber. (Laughter). At all events, Mr. Calvin came forward and told you——

CHAIRMAN GIBBONS: It is a question of deals. (Laughter).

MR. R. C. SMITH: Well, I am not going to suggest log-rolling—(Laughter)—but at all events Mr. Calvin declared to you here that he had made a contract, and the ink was not quite dry upon the paper, by which this commercial corporation agreed to indemnify him for all his losses. Now, I would like to say this, or ask this: Did they at the same time—

CHAIRMAN GIBBONS: *Fix you?* (Great laughter).

MR. R. C. SMITH: That, I believe, is one of the very best questions that I have heard the Chairman ask to-day. (Laughter). I was not going to put it in that shape, that they fixed me, but what I was going to ask was this: Did they make any provision for indemnifying all the other shipping interests that will be affected when Mr. Calvin's logs and Mr. Calvin's rafts and every other raft is forced through that lock? They don't say to Mr. Calvin, "You go out of the business." There is going to be some lumbering done still; there are going to be some rafts go down, and Mr. Calvin's rafts and everybody else's rafts are going to come through this single lock that is to be the biggest lift-lock in the world, and when our steamers come along and Mr. Calvin's rafts or any other rafts are in the locks, we are going to be detained. Is there any provision made for compensating those interests? Not at all. I say that the fact that they have agreed to indemnify Mr. Calvin is an admission before this Commission that they ought, if they get permission to proceed, to indemnify all the other interests that they have injured.

MR. MCCARTHY: You called that "square" before?

MR. R. C. SMITH: Well, that they should square other interests. It is an admission on their part that they ought to do it, but I say that by doing it in that shape, and by squaring Mr. Calvin, they do not make

that transportation route more convenient or any more speedy or expeditious for my Company or for anybody else using it. Now, there is another matter. That route which we have enjoyed, and which is a free, unobstructed route, passes through International waters. A short portion of it at the bend in the river is wholly within the United States territory, but through International waters it passes unobstructed. It is proposed now to substitute for that unimpeded natural route a single lock which is situated wholly in American territory. Not only is that lock situated wholly in American territory, and to be owned, we are told, by the Government of the United States, but all the regulating and controlling works in connection with this power development are to be situated wholly in the United States.

CHAIRMAN GIBBONS: May I just interrupt there again? These details have not been settled, and I do not know that I ought to say so, but I do know that the engineers of the Government of Canada are insisting that a lock should be on the Canadian side. That is one of the details to be discussed subsequently, but the Canadian Government's position so far with regard to that, as I understand it, is that there must be a lock on the Canadian side in place as well.

MR. R. C. SMITH: I am very much obliged to the Chairman. That illustrates what people have said, and by no one more forcibly said, than this morning by Mr. Wright, that we are in the dark.

CHAIRMAN GIBBONS: We are not dealing with those details now.

MR. R. C. SMITH: I am speaking of the general outline of the plan that Mr. Rickey gave us on the map yesterday.

CHAIRMAN GIBBONS: There is nothing in the form; only the general question is before us that you are discussing—that under no condition should it be dammed. I think what you have said so far in discussion is important.

MR. R. C. SMITH: I was just wondering, if nothing at all has been decided, what was the basis of settlement with Mr. Calvin. (Laughter).

CHAIRMAN GIBBONS: I cannot enlighten you as to that. (Laughter).

MR. R. C. SMITH: There seems to have been something definite enough to make a contract in black and white with Mr. Calvin. Well, now, I submit this to you, that we have an actual and existing interest in objecting to the controlling works and the canal or the lock being situated wholly outside of Canadian territory. Those controlling works—I need not emphasize this, for it is apparent to you all—are not part of a navigation proposition, they are part of a power proposition. Those controlling works will be operated in the interests of the power scheme, and not in the interests of the navigation scheme. Those controlling works might be so worked as to materially affect the whole channel down to Quebec. Those controlling works would probably

come into play more during the low water than at any other time, and if they held back water for power purposes, they might very well affect the channel some inches, which might result very seriously indeed to the whole navigation of the Long Sault. Now, I say that that emphasizes the fact that we have an actual and an existing interest in whatever controlling or regulating devices are adopted, in whatever plan is adopted, in having them situated where they are under our own jurisdiction. I would not suggest that that canal would be used by the United States Government prejudicially to Canadian interests. There have been a number of examples shown by Mr. Cumberland where the Canadians did not feel quite satisfied with their treatment; but what I say is, that when you are coming now to an International body to discuss the problem, I want our American friends to put themselves exactly in our position, and to look at it judicially, as though they were Canadians, not Americans, for the time being.

CHAIRMAN GIBBONS: They will, and always have, I am very glad to say.

MR. R. C. SMITH: Then I am sure if they do, they will feel that if a power development of 600,000 horse-power was proposed, and only 100,000 of it could possibly be developed on the American side or within American jurisdiction, and that the lock which was substituted for the free, unimpeded channel of the river was to be situated in Canada, and was to be made over to the Canadian Government, and if all the regulating and controlling works and devices were to be situated wholly in Canada, then I say that I believe in my conscience they would not see fit to make the recommendation.

With regard to the scenic effect of the rapids, that was very happily expressed by Mr. Cumberland. That you must look upon as an asset, and as a vested right, seeing so much money has been spent in developing that particular trade. My friends over here argued that you were going to give something better. They were evidently like the Scotch lady who said, "The works of the Lord are great, but the works of men surpass them all." (Laughter). They are going to substitute this lock and this dam as something very picturesque and beautiful, to attract people from all over the world. I think the Richelieu & Ontario Navigation Co., which has built up this trade, is probably in as good a position as the Development Company or anybody else, to say what the people come to see. They come to see the greatest chain of rapids and the greatest rapids that are navigable in the whole world; and when, once, you dam that river, of course you will never have it again in the same position; you are doing it once for all. Navigation could never be the same on that river, after it is once dammed. We have been told that this project will improve navigation. I cannot discuss

this, for the same reason that you have already given me, that there are no plans drawn and none adopted, so that I cannot tell—I couldn't tell anyway—but engineers are unable to state what the current would be. There is a pilot here who has had very many years' experience on that river, Captain Battin. I have discussed it with him, and he expresses the greatest doubt and fear concerning the effect of these dams upon the currents. We do not know how high the dams are to be; we do not know what the deflection of the water is to be. Of course, the pilots cannot tell until the effects upon the current have been figured out by engineers; but there is the root of the matter—that you are proposing to change the character of the navigation of that river altogether.

Again, it is said that that should be done by the Government. I must admit that we would not be very much pleased with the Government if they were to dam it; but we are not exactly in the same position if the Government should undertake it, for this reason, that if this private corporation does it, it does it in the interest of power development for dividend purposes. If the Government does it, the Government will do it primarily to take care of navigation. Why, sir, there is in this room at this moment one of the harbour commissioners of Montreal, and I heard him say, not three weeks ago, that there is a continual race between the production of the West and the transportation facilities of the East. We have developed only five per cent., or less, of the arable lands of our Northwest. Less than five per cent. of the millions of acres there, that are going to be producing have been scratched by the plough. Year by year, you are going to have a stupendous increase in the product of that Northwest. It must reach the sea; and the one great artery, the one great channel that must take care of the greater part of all that grain and produce of the Northwest is the St. Lawrence river—the St. Lawrence River route improved as Mr. Kennedy has suggested, or improved in some other way. I say that the paramount question before the Government of this country to-day is the question of transportation. I say that general consideration alone should make this Board hesitate to formulate any recommendation that will dam the whole of the river St. Lawrence, which is to be the great outlet for all this product of the Northwest. It has been conceded that navigation interests are paramount, and yet it is proposed to dam the whole river and to put the trade coming eastward, which now uses the rapids in the hands of a foreign, though very friendly, power, by giving that foreign power control of the single lock and regulating devices. It has been argued very eloquently indeed, that it is necessary to conserve our natural resources, but it was stated that conservation means utilization, and the only way that we can conserve our natural resources is by using them. I ask whether it was seriously intended that this

intelligent Commission and this company of people should believe that the way to conserve our national resources is to utilize them by handing them over to a private corporation, to be used for the purpose of making millions of dollars in dividends? I say, sir, that is not the conservation of natural resources. I say we have a distinct interest in the Government carrying out this work, for the reason that when the Government does it, navigation will be made foremost, and power development will be incidental; whereas, at present, the whole scheme is a scheme of private enterprise—laudable enough—to obtain private dividends from our national heritage. (Loud applause.)

Mr. Hilliard: I spoke yesterday in reference to the legal position of the Ontario Government. I wish to speak to-day, of the feasibility of the damming of the Long Sault, and particularly in reference to the vested rights of the inhabitants of the county of Dundas and the village of Morrisburg, a constituency, represented in the legislature by Sir James Whitney. The experience of the residents of that district, coupled with the experience of the navigators of that district, should have weight, we think, with this Commission. It has been proven by actual test that when there has been an ice jam at Cornwall below the Long Sault, the river rose twenty feet there. This caused the river —open all the way—to rise twenty-one inches at the docks at Morrisburg. Speaking generally, that seems an utter impossibility, because of the great height of the Long Sault rapids. We are in a position to bring the witnesses to give that evidence under oath. We have not brought them here to-day because we were not sure of the mode in which that evidence would be received. Moreover, on three different occasions ice-bridges formed between Croil island and the main shore, immediately east of the Farran Point canal. The islanders, under cover of the night assist nature in the creation of these ice jams. They saw off the ice that forms in the bay early in the season, thus permitting it to swing around to the shore of the island, so as to form an ice-bridge. Between that point and the western end of Galop rapids, some thirty-five miles, the river is entirely open, and anchor ice and frazil ice form in large quantities. Then, snow blows off the large tracts of the ice of the bays along the shore into the river. Anyone passing along the shore on the Dundas County side, during the winter months may see this ice and slush and snow floating down the river in immense quantities. Such material caught on the ice-bridges, formed at Croil island in 1879, 1887, and 1905. It backed up at the rate of from half a mile to two miles a day. No appreciable damage was sustained until this slush and cakes of ice and anchor ice that formed at the bottom became wedged in, back to the narrow parts in the river. One of those places is known as Weaver point, about five miles above Croil island. At that point, the ice and the snow which cemented the cakes of ice were jammed in the

bottom. The ice then formed west of that and caused the water to rise above the layer below. On one night time a remarkable shove of ice occurred, shoving up upon the shore, lying between Weaver point and Cook bay, crushing down a dwelling house, overturning the stove, and setting the place on fire. The people escaped with their lives, however. In 1905 the whole channel of the river west of the village of Morrisburg was filled full of this anchor ice and snow, caused by a small dam at Croil island. It completely submerged the water-powers that the village of Morrisburg have leased from the Dominion Government. The powers were disabled for the time being, and the docks, the canal gates, and the canal bank was threatened with this ice. We have here a photograph of the condition of the river, showing the ice blockade (handing photograph to Chairman). This took place late in the month of February, when the sun had become fairly strong. Fortunately, too, the weather continued mild, so that a channel was worn through the ice. Here is a photograph of the same situation, showing the American shore and the islands. Dry island, which is now owned by Mr. Corrigan of Cleveland, was submerged. (Handing second photograph to Chairman). Now, if at that particular time we had had zero weather—which we often have in February—and a southwest wind, this jam would have carried away the lock gates, and would have inundated the greater portion of the village of Morrisburg. We have other photographs here, which show the banks of the river at Morrisburg completely inundated. One shows our power-house situated on the canal bank, with the water within a very short distance of the over-flow in the canal. The water rose so high as to put out the fires in our steam auxiliary. We had to get a temporary engine put up upon the canal bank to keep our pumping apparatus in condition. These other photographs show all the boat houses and wharves completely submerged.

What we say is this, that during the history of Canada, that has been handed down to us by the U.E. Loyalists that settled along the front of Dundas county, there has never been a gorge in the river except when man interfered. If the islanders, in their desire to secure bridges to drive over in the winter, had not swung this ice, we would never have had these ice jams. Now, the pertinent point is this: As Mr. Rickey and Mr. Holgate say, the waters west of the Long Sault have a current of about two miles an hour, but ice will take early in December in this northern and rigorous climate. When the days are short and dark, and the accumulations of anchor ice, frazil and slush come down from the Galop rapids and those other rapids, and are collected, we will be having these ice jams annually, instead of at long intervals. But the Development Companies say, "Oh, we will take care of that." We would like to know who the "we" are, and we would like to know what facilities they have for protecting us from

such jams. I do not agree with my learned friends who say they are satisfied with the ruling of the Chair to-day that the matter of detail will not be gone into, but that there will be a report as to the feasibility. With all due respect, the report on the feasibility only carries weight when the question comes up as to how these other interests are conserved or will be taken care of. The whole feasibility of damming the river depends upon how the vested rights along the river bank, and of the villages such as Farran Point, Osnabruck, Morrisburg, etc., are taken care of. Such vested rights have a prior claim. The Company says it will have ice-breakers. If a dam 40 to 45 feet high is built at the Long Sault, there will be, dead-water back to Farran Point, a distance of 5 or 6 miles. The Company tells us that it will raise the water 2 inches at Morrisburg. How does it know? There is not a man living can tell how much, in a tortuous river filled with islands, with different currents, the dam will affect the people of Morrisburg. Now, if such ice jams are allowed to form, the village of Morrisburg will be destroyed. I have seen these shoves take place. I have seen them cut off large trees on the banks of the river, hard maple, two feet thick at that. I have seen the people who live along the river front in the county of Dundas, remove all their implements, all their carriages, everything that could be moved, to the high land close to the Grand Trunk Railway line—which practically constitutes a height of land—and I have known them to keep watch by night fearing that these shoves would cause them to be flooded out at night time. Now, I say this is one of the tremendous effects that would be likely to result from the damming of this river at the Long Sault. Gentlemen, look at one patent fact. In a distance of fifty miles, from Prescott to Cornwall, the river drops ninety feet. West of Prescott, the river freezes over. There is no danger of anchor ice west of Prescott. There is no danger of any gorge west of Prescott. There is danger however, of a gorge at Cornwall and east, but nature provided for that. Lake St. Francis with its broad expanse and great depth, almost every winter takes care of this anchor ice that is formed in the running water to the west. Now, I can easily conceive that, if the proposed Long Sault dam made a complete bond, so that it would be frozen over entirely to Prescott, we would not have any particular objection to the project. While it would block out our power there, we might get compensation for our power in the shape of other power, or in the shape of being bought out. But when it only dams the water back so as to give us still water to Farran Point, we are in jeopardy. The current being "slow to two miles an hour," any man who knows the records of this northern climate, will understand that the river will freeze over.

I say that, before this scheme is reported upon, this Commission should not make any interim report, but should ask for permission to

go into the details. This Commission was right, when at the King Edward hotel it asked that the fullest disclosure should be made. What will be the result if this Commission reports on the bald question that the project is feasible somehow, and somewhere and someway? That report will go to Congress and their Bill will go through. That report will go to Ottawa, and their Bill will go through. We cannot dissociate this question from the complications that are opening before the Parliaments. It is unalterably mixed up. Therefore, I say that no report should come from this Commission to either Government until the fullest details have been obtained, and the whole report passed upon. If I understand the Commissioners aright, on the adjournment of this meeting, they propose to make a report to their respective Governments on the feasibility of damming the river, and to ask that before the plan of the incorporated companies be passed upon, we should have a chance to discuss it. Gentlemen of the Commission, the damage will then be done. If this Commission first, ask the various Governments to allow them to pass upon the plans before they recommend the feasibility of the scheme then, I think I can say we will all retire. (Hear, hear). Is it not possible for the Commission to ask for power to report upon the plans before any other report is made to the respective Governments? I should be glad if the Chairman would satify me as to that.

Chairman Gibbons: I would try to answer that point, but I cannot speak for the whole Commission. I have told you what my own view of the matter was. All those matters which you have just been talking about, have been looked into by Government engineers. I have had the benefit of their special information. This Commission is not learning all about this ice for the first time. All these matters have been reported upon and have been considered by people who think they understand, and they are being considered by the Commission. Now, my own idea was that we shall have cleared the deck by this discussion. It is impossible to thresh out in a meeting like this the details of a scheme of this kind. It never will be possible. The plans will have to be worked out very carefully, and a lot of provisions made that have not been even suggested here, but that have suggested themselves to the engineers of the Government and to the Commission. When these things are in shape to submit, my own idea—and I can only speak for myself here—is that the general public ought to be again taken into our confidence. If we agree at all that the matter is feasible, that then we should tell you what plans and what safe-guards have been provided, and that we should give the public a chance to see what those are, and approve or disapprove of them.

Mr. Hilliard: Will that be before or after the Commission report to the respective Governments on the feasibility? That is the point.

CHAIRMAN GIBBONS: That is a question that I am not going to answer for the Commission. My own idea was to suggest that it might be possible to make a report that under certain circumstances—following much the line of Mr. Kennedy's remarks to-day—that, under certain conditions and subject to certain provisions, it was feasible.

MR. HILLIARD: May I ask, how can the Commission report on the conditions and the safe-guards, without having all the detail plans?

CHAIRMAN GIBBONS: The engineers of our Commission and the engineers of the Government, who ought to know what they require, have thought that they had quite sufficient detail to enable them to form an opinion on the general character of the undertaking, subject to certain conditions. I am not an engineer. Both the Government engineers and the engineers upon the Commission have thought that they had sufficient data to deal with the general question.

MR. HILLIARD: Then, Mr. Chairman, the public will not now have an opportunity to criticize the plans that have been submitted, and of which you have received knowledge.

CHAIRMAN GIBBONS: I do not understand that any definite plans have been submitted. I understand that they are only dealing now with the general proposition.

MR. HILLIARD: What we would ask, then, from the Commission, before they make any report, and what I would urge most strongly, is this: I would urge that those plans at least be submitted to the public before there is any report from this Commission. That is to say, having once entered upon the process of investigating this matter, that there should not be any investigation between the engineers of the Development Company and the engineers of the Government that will not go to the public before this Commission reports. That is the ground I take. It seems to me it would be most discourteous to the different parties who have been invited to appear here before the Commission, that the great and important part of the enquiry should be one in which the persons to the application should have a say with the Government, and the other parties only have an informal hearing before this Commission.

CHAIRMAN GIBBONS: I think we understand your argument.

MR. HILLIARD: For instance, Mr. Chairman, I urge that a private report of the Dominion Government to the Chairman of this Waterways Commission takes us at a disadvantage. It eliminates the very thing that we are here to criticize. If this is to be the end of the enquiry here, then of course, on behalf of the Ontario Government, we will have to carry the question some place else.

MR. KING: Mr. Chairman, I find myself in a very, very difficult position. I do not like to be accused of "backing and filling." There *has been some* backing and filling. I must, however, on behalf of the interests I represent, impress very, very strongly, that there is no

shadow of an assent to the proposal such as might have been gathered from my rather acquiescent attitude a while ago. I made the statements I did under an understanding which now turns out to have been rather a misapprehension, and I want to try to set the matter right; because I was disappointed—I say it with deference, Mr. Chairman—but I was disappointed in the understanding that the Commission gave yesterday to our previous agreement. I set the matter right now because I do not want to be at some time told that to-day we agreed, on behalf of the navigation interests, that the project was all right. What we said was that we were prepared to stand aside provided we were going to see all those plans. If there is no such understanding, then there is no agreement.

MR. HILLIARD: There is a gentleman here from the vicinity of Morrisburg and Dundas, who lived there many years, who was brought up on the river, and would like to give some information.—Mr. Connolly.

MR. W. C. CONNOLLY: Mr. Chairman, and gentlemen of the Commission. I am not here representing any other interests than my own. I have been a life-long resident of the vicinity of Morrisburg, and have interests on both sides of the river at the present time. I wish to say to you that the old residents generally along that river, in view of their past experience with floods, are in abject terror of this scheme. I am, for one. On one occasion, I have seen an ice jam above the rapids, apparently harmless at the start, but which filled that river from top to bottom, and caused damage for a distance of 11 miles. There is no human agency that we know of that can take care of those ice jams. That is something that we believe is beyond the power of any Company or possibly any Government, under some conditions. Now, as I understand it, the crest of the dam that is proposed to be built, will be above the level of the upper reaches of the Cornwall canal. A horizontal line from the crest of that dam will come within ten feet of the surface of the St. Lawrence at Morrisburg, twenty miles above that point. It is equivalent to a submerged dam over 20 feet high in the bottom of that river.

MR. MCCARTHY: Mr. Connolly, are you interested in any other power scheme in that locality?

MR. CONNOLLY: No further than I have an investment in what is known as the Waddington power. I formerly owned part of that power.

CHAIRMAN GIBBONS: I do not understand Mr. King when he says he does not withdraw on account of some arrangement. I do not know that there has been any change between yesterday and to-day. As I understand, the Commission is now asked—and the pressure is because of action in Congress—to give an expression of opinion upon the general effect. Because of the communication from Congress to the American Commissioners we have had to deal with it. The Commission are

unanimous, and have been all through, as I understand it, that if they do decide to express an opinion in favour they will suggest that one of the first conditions will be that these plans should be submitted to them and should be approved of by them.

COMMISSIONER CLINTON: And must be approved.

CHAIRMAN GIBBONS: And must be approved before being submitted even to the different Governments for their approval. Of course we can only suggest this; and if they are submitted to us they certainly will be submitted to you and an opportunity given to criticize them. I do not know where the misunderstanding has arisen. I can only say that we will make this a condition of our report if we report at all in favour of the general scheme.

MR. KING: Do we understand, Mr. Chairman, that that is a statement on behalf of the Commission, or the personal view of the chair?

CHAIRMAN GIBBONS: I spoke to General Ernst; I think that is the general view, is it? Do you agree?

GENERAL ERNST: I have no objection in the world to that; but it seems to me a very great waste of time. I do not see how it is possible for an assemblage like this to settle on the details of an engineering plan. We want to hear all of your interests, every possible objection you can make; but, when it comes to settling the details of an engineering plan, I do not see how to get ahead in an assemblage like this. That is all. But I have no objection, at all, to submitting them to you, if that is your wish.

MR. KING: Not necessarily, in a general assemblage. If the various interests that are now diametrically opposed to the scheme were placed in a position to consult, with experts, that is really what we want, more than an opportunity given in a meeting of this kind, which is absolutely no opportunity at all, from my point of view.

CHAIRMAN GIBBONS: As far as I am personally concerned, as Mr. King will know, I am exceedingly anxious; I feel that you should have an opportunity and that you should avail yourselves of it by bringing experts who are independent, and who can give us the benefit of their opinion before this Commission. Mr. King will know that that is the ground I took as far back as the original meeting in Montreal. I have been anxious all along that you should have the benefit of independent experts.

MR. R. C. SMITH: Would you allow the general manager of the Richelieu & Ontario Navigation Company to say a few words concerning his schedule of time?

CHAIRMAN GIBBONS: Certainly.

MR. C. J. SMITH: In addition to the remarks of our counsel, Mr. R. C. Smith, I would like to explain the basis on which our time card has to be made, and which this scheme will affect. We are forced to adopt

a time card by which our boats leave Toronto after the trains have all arrived from the western gateways and the boats from Niagara, which is three p.m. We then run on time card to Charlotte to connect with the trains leaving from that district via the gateway of Rochester to New York and central New York State points. They are there soon after we arrive, and, after we take the passengers that are brought in by the Rochester gateway, we go down to Kingston to make an early morning connection with the Grand Trunk sleeping cars that come in from the West. These sleepers carry passengers who had not arrived at Toronto at three o'clock, but have come down from Chicago and the west in the day time, going through from Toronto to Kingston at night in sleeping cars, where we take them at six o'clock in the morning. It is a matter of train connection. From there we run over to Clayton to get the passengers brought in by the New York Central lines from their different rail avenues, which trains arrive about seven a.m. From that point, it takes us all our time—being limited to those train connections—to reach Montreal by daylight, to connect with our Quebec boats leaving there at seven p.m. On reaching Quebec, passengers are ferried across to Levis, to make rail connections with points on the Intercolonial and the Quebec Central lines. To do this, it is necessary for the boats to leave Montreal not later than seven p.m. Within the last five years the Richelieu & Ontario Co. to bring this about, to improve the conditions, and to build up the tourist business, has been obliged to build new steamers of a modern type, which will carry a much larger number of passengers and at a much higher rate of speed. This is necessary, because, in these days, you must give a service, even for tourists, that will meet competition from other water tourist lines and rail lines. Therefore, we cannot suit ourselves to the proposed new conditions without injury. We are told that, by using the new lock on the American side, it will only take us about half an hour more to reach Montreal. That might be the case, or it might not be the case. We have no information on that point, except the statements made by engineers representing this power scheme. At the present time, we have the advantage of currents before we reach the Long Sault, and advantage of currents after we have passed the Long Sault. What time we will lose we cannot say. Our pilots are not able to get any information, although it was promised to us in the meeting in November; but it has not yet been forthcoming. We feel, and I think we are right, that if they say half an hour, as we understand it, it is the half hour that will be lost in going through this lock. But supposing there are other big vessels there ahead of us, then we will be delayed that much longer. Even now, we do not always reach Cornwall on time. We have fogs to contend with, we have to wait for train connections; but if we are unfortunate enough to be delayed we have a certain amount of slack time. This slack time will

all be taken up, and more than taken up if we are obliged to run through any locks. If we were obliged to run through the Cornwall canal eastbound, it would take four hours, which would make it impossible to reach Montreal the same night, because we cannot run the rapids after dark. We would have to cancel the trip that these tourists had come into this country for the express purpose of making, and as a result the principal asset of our business would be destroyed. Ninety or ninety-five per cent. of our passengers come from the west and travel down in gradual steps and stages. We claim that it is the Long Sault rapids, the Thousand islands and the other rapids, that attract these tourists. Now, if you break a link in that chain you injure our business, and we do not know what the result will be. We can say this much about it, that if we are unfortunate enough to have an accident or breakdown with our rapids boats, and we have to run the passengers by rail to Montreal, our business will drop off in the middle of the season from 300 or 400 people a day to 50 people a day. That is the reason I wish to place before you this information respecting this time card. It is all based on the time card, and we can only maintain our schedule by leaving Kingston at six o'clock in the morning, and when days get shorter we have to leave Kingston at 5.30 in the morning. So that any impediment put in the navigation of this stream is a positive injury, and will result in very great and serious loss.

CHAIRMAN GIBBONS: Are there many more gentlemen to address the meeting, or are there any others who desire? If there are further addresses, posssibly we had better adjourn for lunch. Are there any others?

MR. MCCARTHY: I do not think so.

CHAIRMAN GIBBONS: If there are no others who desire to address the meeting, I suppose the general meeting will close.

MR. PRINGLE: There is just one little statement I want to make in regard to what was said as to power in the east. I think it was made entirely under a misapprehension. I have in my pocket the correspondence dealing with that question of power. It was also stated by some gentlemen here that the east could get power at, I think, $12.00 per horse-power at the plant—I do not know the technical term. First, it was stated generally at $12.00, and since then it has been modified to $12.00 at the plant. Now, I find the prices of power in this portion of Ontario to be contained in a document issued by the Hydro-Electric Power Commission of Ontario. Power at the plant is somewhere from $9 to $10; at the point of distribution, it runs from $18 up to $29.50. We do not know where this plant is—it has been unheard of in so far as any of us in eastern Ontario know—but I have the correspondence which we in Cornwall had with the Hydro-Electric Commission. We were most anxious to get power, and they could find no means of giving

us power in that district. We suggested one or two possible schemes for power; but we were informed that the one scheme suggested was entirely out of the question, and there were some indefinite suggestions about some power at Waddington. When we came to investigate that—

MR. HILLIARD: What is the date of that, Mr. Pringle?

MR. PRINGLE: This was in 1906, and continued for some time. I want to say that these are the prices for power.

MR. HILLIARD: What is the date of that pamphlet?

MR. PRINGLE: 1908.

MR. HILLIARD: It has been revised since.

MR. PRINGLE: Now, the prices as given here for power vary, Toronto being the cheapest at $18.10, and running up to $29.50 at St. Marys, $26 at Hespeler, $24 at Berlin, $26.50 at St. Thomas, and so on. I may say to you, Mr. Chairman and gentlemen, that I do not think power at those prices would be of any great value to Brockville, Cornwall or the other towns in the eastern districts. Now, you have had great patience, and I know that I am trespassing a little, but if you will just bear with me a moment I will soon conclude. We have had everything up here, from manufacturing tacks to beef trusts, and we have got away almost entirely from the issue. I was more than pleased with what Mr. Kennedy said, for we Canadians have the greatest respect for him. There is no man who is more conversant with the St. Lawrence river and its conditions than Mr. Kennedy, who for so long was connected with the harbour works of Montreal. I was very careful to note what Mr. Kennedy said, because it was the crux of the whole position. The question before you gentlemen is, "Is this scheme feasible?" And Mr. Kennedy put it in a very nice and most comprehensive way, because he covered the whole thing that is before the Commission. He said that this work can be done wisely and safely. Now, is not that the whole position?

MR. HILLIARD: Would Mr. Pringle accept Mr. Kennedy's whole answer?

MR. PRINGLE: Just wait, Mr. Hilliard; I did not interrupt you. Mr. Hilliard gave us a very earnest discourse; I would be very sorry to see our good friends at Morrisburg disturbed in any way by water. I think our engineers can meet Mr. Hilliard's views in regard to that. We are not dealing with that now, because I do not think it is pertinent here. It is not a question whether the gentlemen of Cornwall, or the Cornwall Board of Trade, would accept Mr. Kennedy's opinion. Mr. Kennedy has stated that this work can be done wisely and safely. It is a question of detail to be worked out by the respective Governments. I regret that somebody here had to refer to this Company as composed of "foreigners."

Why, the men who are to-day at the back of this Company have from two to three millions of dollars invested in the Dominion of Canada. That money would have been invested right near the town of Cornwall if the town of Cornwall had been in a position to give them power. The first time I ever saw Mr. Davis was when he came to the town of Cornwall to see if there was a possibility of getting power. Now, look at our position; I will explain it to you briefly. Notwithstanding what anybody has said here, there is not one horse-power to-day on the north side of the St. Lawrence river that can be developed.* It is developed to the limit. There is not one horse-power on the south side of the St. Lawrence river at that locality that can be further developed;† it is developed to the limit. We now have to reach out into that river for further power. Representing as I do the town of Cornwall, my instructions are, "Do everything possible to assist in getting the development of that power so long as Canadian interests are protected." A great deal has been said here in regard to government ownership. Surely that is not a question to be dealt with here. I do not know what views our American friends take in regard to private ownership as against government ownership. I do not know what view the Government of this country may take. Many of us as individuals favour private ownership with government control; I simply got up to correct an impression that may have got abroad that Cornwall at least—and I think I may speak for Brockville, may I not, Mr. Maclaren?

MR. MACLAREN: Yes.

MR. PRINGLE: Brockville has never been offered power at $12 per horse-power; and I think I may speak for Prescott and her manufacturers that such a thing has never been heard of. It has been said here for the purpose of throwing a little more dust and creating a little more delay in getting a report on the feasibility of this project. If we accept the evidence of the experts brought here by those who are endeavouring to get the Bill, and take the evidence of Mr. Kennedy—he frankly admits the scheme is feasible—all that is necessary is that the work should be wisely and properly considered and properly done. Surely we have got confidence enough in those who represent us in Parliament, that they will see that the interests of all parties are amply protected, and that every detail in every possible way shall be gone into before this scheme goes through, which we all admit is a very large undertaking. I thank you very much, gentlemen, for giving me these few minutes. (Applause).

*When this statement was made there was a surplus 1,100 h.p. at the Mille Roches plant, five miles from Cornwall.—ED.

†The Massena, N.Y. plant had 40,000 h.p. available, but the units had not been installed because there was no market for the power.—ED.

MR. HILLIARD: I would simply reiterate Mr. Beck's promise. The Government of Ontario is at stake in that promise, and the Government of Ontario are prepared to back it up.

CHAIRMAN GIBBONS: I suppose the Government of Ontario hold out no offer to the people of New York?

MR. HILLIARD: No.

CHAIRMAN GIBBONS: This is purely an International matter, and I do not see that that can have a very great bearing. Is there anybody else who desires to address this meeting? If not, we will adjourn. The public meeting is now adjourned.

Meeting closed at 1.30 p.m.

LA CHAMBRE DE COMMERCE DU DISTRICT DE MONTREAL

PROJETS DE BARRAGE DU ST. LAURENT AUX RAPIDES DU LONG SAULT PAR DES COMPAGNIES PRIVEES

La Chambre, après avoir pris communication de la lettre de M. W. J. Stewart, de la section canadienne de la Commission internationale des voies d'eau limitrophes, invitant notre Chambre à être représentée et à exposer son avis à cette Commission lors d'une séance à être tenue le 8 février prochain à Toronto, sur une requête soumise par la "Long Sault Development Company of New York" et "The St. Lawrence Power Company of Ontario," croit devoir réitérer l'expression des vues exprimées antérieurement, notamment à la suite de rapports d'un comité spécial d'ingénieurs en date du 10 juillet 1905 et du 11 décembre 1907 et s'en tenir à l'attitude que comportait un mémoire présenté par cette Chambre à cette Commission le 25 février 1909;

La Chambre se déclare en conséquence opposée à tout projet qui aurait pour effet en aucune manière de nuire aux intérêts de la navigation sur le St. Laurent, et elle croit devoir protester contre la demande de la St. Lawrence Power Company comme étant de nature à détruire la valeur commerciale d'une des plus importantes richesses du pays.

La Chambre décide en même temps de transmettre copie de cette résolution à la section canadienne de la Commission Internationale des voies d'eau limitrophes et au gouvernement du Canada.

Adopté le 12 janvier 1910.

Pour copie conforme,

Le Secrétaire,

(Signé) F. BOURBONNIERE

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